

JANUARY 2021

TECHNICAL MEMO

PHASE 2 PUBLIC ENGAGEMENT



CONTENTS

1.0 Introduction	
2.0 Survey	
Survey Recruitment	
Survey Results	
3.0 Public Meeting	31
4.0 Conclusion and Next Steps	31

1.0 INTRODUCTION

The Virginia Department of Transportation (VDOT) is using the public engagement process and analysis of present conditions and future plans to develop a series of feasible transportation options for an approximately two-mile section of 5th Street (Route 631) that runs through Charlottesville and Albemarle County. This memorandum documents the second phase of public engagement for the 5th Street study, which involved gathering feedback about the proposed street and intersection options along 5th Street.

2.0 SURVEY

VDOT began by gathering feedback from 5th Street corridor residents and the commuting public through a survey. The survey introduced the public to the proposed street and intersection options and solicited input about the study vision and goals, street options, and intersection options. VDOT produced an online version of the survey. The survey was open for responses from June 4 to June 26, 2020.

Attachment A includes a copy of the survey.

Survey Recruitment

VDOT engaged corridor residents and members of the commuting public to take the survey using an array of recruitment tools, including:

- 5th Street study web page
- VDOT's Twitter account
- Requests to members of the study's stakeholder group to share the survey link on their web pages and social media platforms
- Emails to over 30 community groups sharing a fact sheet about the study
- A targeted mailer to corridor businesses advertising the survey

Attachment B includes the recruitment materials used for the survey and associated public meetings.

Survey Results

The survey was filled out by 913 people by the survey end date (June 26, 2020). The following section summarizes community feedback based on the two main survey sections: Street Options and Intersection Options.



Street Options

The 5th Street corridor can be divided into two different sections based on changes in the corridor transportation and land use context. The sections include 5th Street north of I-64 and 5th Street south of I-64. The following sections detail the different transportation options for each section of the corridor and the public response to each of them.

Respondents were asked to rate the transportation options from least preferred (1) to most preferred (5). These results are detailed in the following sections.

North of I-64

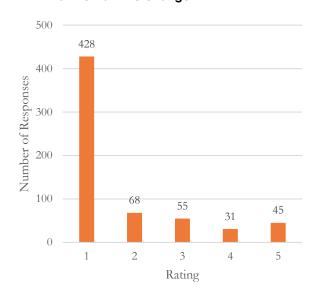
Respondents were provided with five different transportation options for 5th Street north of I-64. The transportation options included no change to the existing corridor, adding sidewalks on both sides of the corridor, adding a multi-use path on one side of the corridor, adding sidewalks and bike lanes, and adding sidewalks and a multi-use path (**Figure 6**).

No Change

This option would not change the existing corridor segment north of I-64. Currently, sidewalks and bike lanes end south of 5th Street Station Parkway. The incomplete bicycle and pedestrian network is disconnected from trails, employment, and transit, discouraging bicycle and pedestrian use. Existing sidewalk and bike lanes do not include a buffer separating non-motorized users from motorists, further reducing comfort for non-motorized users.

Most survey respondents (68%) did not prefer the existing corridor to the proposed transportation options (**Figure 1**). Based on average rating, the no change option scored the lowest (1.72) and therefore is the least preferred option for 5th Street north of I-64.

Figure 1. Rate the existing conditions of 5th Street north of the I-64 Interchange



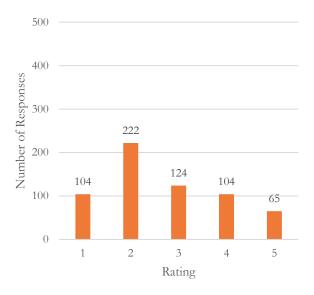
Sidewalk

This option would add 8-foot sidewalks on both sides of 5th Street. Bicyclists and pedestrians would share the sidewalks. Where right-of-way allows, a landscape buffer would separate non-motorized users from motorists. This option can fit within the existing right-of-way. The increase in paved area on both sides of the road and the curb relocation would impact drainage moderately.

Adding sidewalks on both sides of the corridor was a more favored option than retaining the existing 5th Street corridor (**Figure 2**). However, based on the average rating, adding only sidewalks scored the second lowest (2.68) of the five transportation options.



Figure 2. Rate adding sidewalks along 5th Street north of the I-64 Interchange

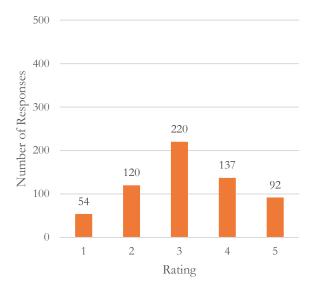


Multi-Use Path

This option would add a multi-use path on one side of 5th Street. Bicyclists and pedestrians would share the path. Where right-of-way allows, a landscape buffer would be provided between non-motorized users and motorists. This option can fit within the existing right-of-way and would have moderate drainage impacts on one side of the road.

The addition of a multi-use path was a more favored option to retaining the existing 5th Street corridor and to the addition of sidewalks on both sides of the corridor. However, the majority of respondents (63% - 394) gave this option a score of 3 or lower (**Figure 3**).

Figure 3. Rate adding a multi-use path along 5th Street north of the I-64 Interchange



Sidewalk & Bike Lane

This option would implement a six-foot buffered bike lane on both sides of 5th Street. This is the only option that fully separates bicyclists, pedestrians, and motorists. Where right-of-way allows, a landscape buffer would be provided between non-motorized users and motorists. This option fits within the existing right-of-way only south of 5th Street Station Parkway and would need to transition to 8-foot sidewalks or a multi-use path between 5th Street Station Parkway and Harris Road. It would add substantial drainage due to the increase in paved area on both sides of the road.

This option received the highest average rating (3.85) of the five options for 5th Street north of I-64. More respondents (42% - 264) gave this option a rating of 5 than any of the other options and 67% of respondents gave it a score of 4 or higher (67% - 422) (**Figure 4**). Adding sidewalks and bike lanes is the recommended option for 5th Street north of I-64 based on survey responses.



Figure 4. Rate adding sidewalks and bike lanes along 5th Street north of the I-64 Interchange

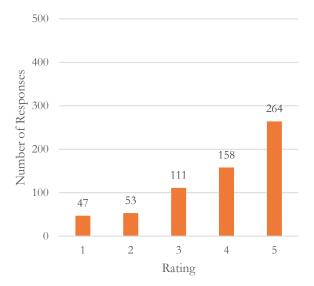
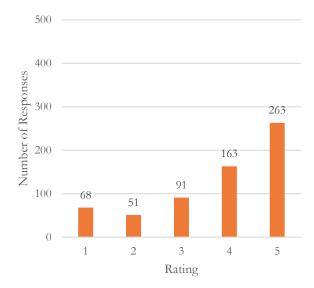


Figure 5. Rate adding sidewalk and multi-use path along 5th Street north of the I-64 Interchange



Sidewalk & Multi-Use Path

This option would add a 6-foot sidewalk on one side of 5th Street and a multi-use path on the other side. Bicyclists and pedestrians would share the sidewalk and the multi-use path. Where right-of-way allows, a landscape buffer would be provided between non-motorized users and motorists. This option fits within the existing right-of-way only south of 5th Street Station Parkway and would need to transition to 8-foot sidewalks or a multi-use path between 5th Street Station Parkway and Harris Road. It would have substantial drainage impacts due to the increase in paved area on both sides of the road.

This option was also highly favored by survey respondents. The majority (68% - 426) gave this option a score of 4 or higher (**Figure 5**).

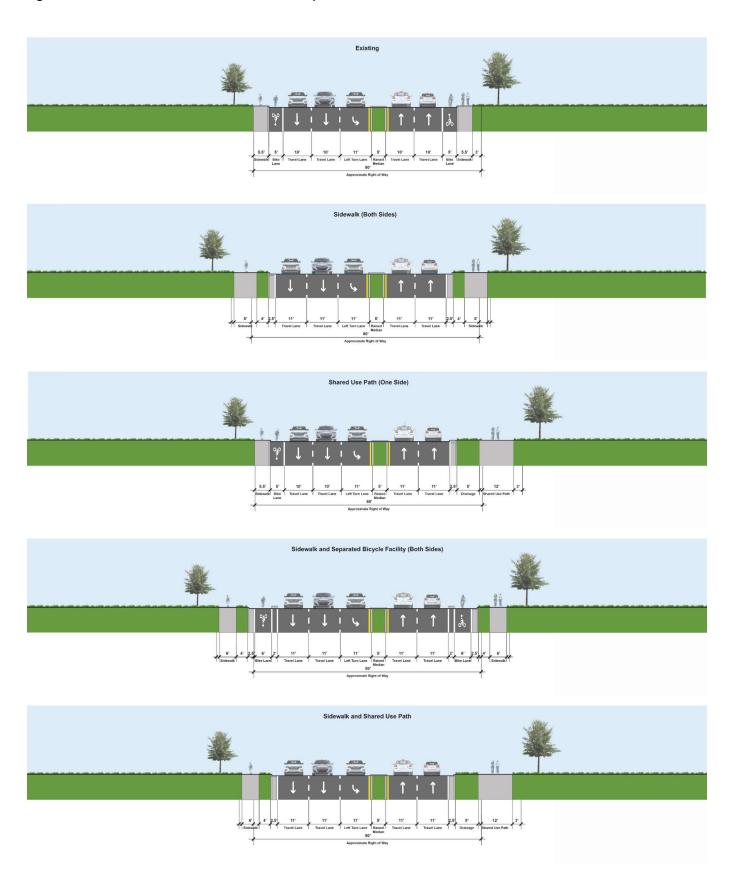
Key Takeaways

Survey respondents preferred two street options north of I-64:

- Sidewalk and Bike Lane
 - o Most 5/5 ratings
- Sidewalk and Multi-Use Path
 - \sim Most 4/5 or above ratings



Figure 6. 5th Street North of I-64 – Cross-Section Options





South of I-64

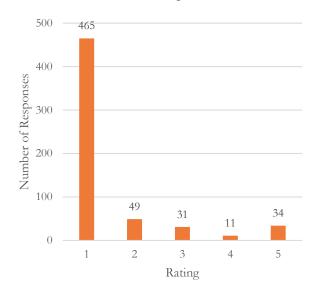
Respondents were provided with four different transportation options for 5th Street south of I-64. The transportation options included no change to the existing corridor, adding sidewalks on both sides, adding a multi-use path on one side, and adding sidewalks and a multi-use path (**Figure 11**).

No Change

The existing 5th Street corridor south of I-64 has a mix of paved and gravel paths on one side of the street. The incomplete bicycle and pedestrian network is disconnected from trails, employment, and transit, discouraging bicycle and pedestrian use. The existing pedestrian network does not include a buffer separating non-motorized users from motorists, further reducing comfort for non-motorized users.

Most survey respondents (78%) did not prefer the existing corridor to the proposed transportation options (**Figure 7**). Based on average rating, the no change option scored the lowest (1.47) and therefore is the least preferred option for 5th Street south of I-64.

Figure 7. Rate the existing conditions of 5th Street south of the I-64 Interchange



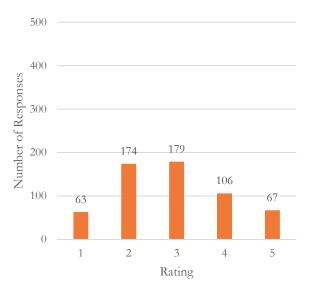
Sidewalk

This option would add 8-foot sidewalks to both sides of 5th Street. Bicyclists and pedestrians would share the sidewalks. Where right-of-way allows, a landscape buffer would be provided between non-motorized users and motorists. This option fits within the existing right-of-way and would have moderate drainage impacts due to the increase in paved area on both sides of the road.

Survey respondents rated this option higher than retaining the existing 5th Street corridor (**Figure 8**). However, based on the average rating, adding sidewalks alone scored the second lowest (2.90) of the four transportation options.



Figure 8. Rate adding sidewalks to 5th Street south of the I-64 Interchange

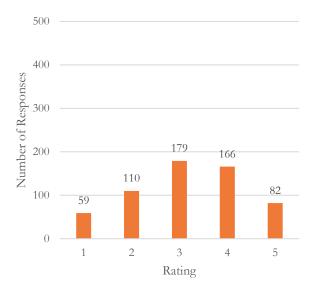


Multi-Use Path

This option would add a multi-use path on one side of 5th Street. Bicyclists and pedestrians would share the path. Where right-of-way allows, a landscape buffer would be provided between non-motorized users and motorists. This option fits within the existing right-of-way and would have moderate drainage impacts on one side of the road.

Survey respondents rated this option higher than retaining the existing 5th Street corridor or adding just sidewalks on both sides of the corridor. Most respondents (76% - 455) gave this option a score of 2, 3, or 4 (**Figure 9**). These scores indicate that respondents are not opposed to the addition of a multi-use path, but it is not the most preferred option for 5th Street south of I-64.

Figure 9. 5th Street South of I-64 - Multi-use Path



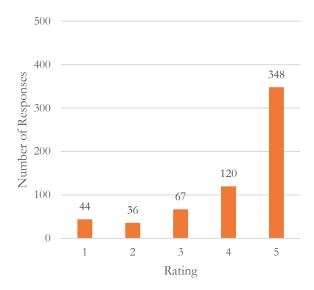
Sidewalk & Multi-Use Path

This option would add a six-foot sidewalk on one side of 5th Street and a multi-use path on the other side. Bicyclists and pedestrians would share the sidewalk and the multi-use path. This option would have substantial drainage impacts due to the increase in paved area on both sides of the road.

This option received the highest average rating (4.13) of the four options for 5th Street south of I-64. More respondents (58% - 348) gave this option a rating of 5 than any of the other options and 67% of respondents gave it a score of 4 or higher (67% - 468) (**Figure 10**). Similar to the survey responses for the transportation options for 5th Street north I-64, respondents preferred separated transportation options with designated spaces for each mode.



Figure 10. 5th Street South of I-64 - Sidewalk & Multi-Use Path



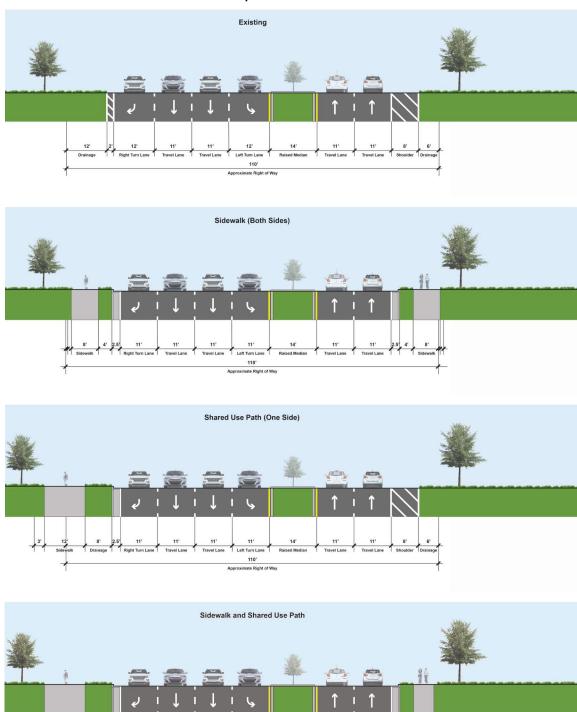
Key Takeaways

Survey respondents preferred one street options south of I-64:

- Sidewalk and Multi-Use Path
 - o Most 5/5 ratings
 - o Most 4/5 or above ratings



Figure 11. 5th Street South of I-64 – Cross-Section Options





110¹
Approximate Right of Way

Intersection Options

The following sections detail the different transportation options and the public response to each for the following intersections: Harris Road, 5th Street Station Parkway, I-64 Interchange, Stagecoach Road, and Old Lynchburg Road.

Respondents were asked to rate the transportation options from least preferred (1) to most preferred (5). The results are detailed in the following sections.

Harris Road

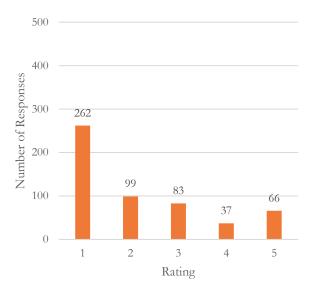
Respondents were presented with two different transportation options for the intersection of 5th Street and Harris Road. The transportation options included no change to the existing intersection (**Figure 14**) and an intersection modification (**Figure 15**).

No Change

If no changes are made to the signalized intersection of 5th Street and Harris Road, the intersection will continue to experience safety challenges for motorized and non-motorized modes. The intersection will continue to experience acceptable travel times for cars and buses, while pedestrians will continue to experience delay at crossings.

Most respondents gave this option a score of 1 or 2 (66% - 361) with 262 respondents (48%) rating it the least preferable option (**Figure 12**). The average rating for this option (2.17) was lower than the average rating for the intersection modification of Harris Road (3.77).

Figure 12. Rate the existing intersection of 5th Street and Harris Road



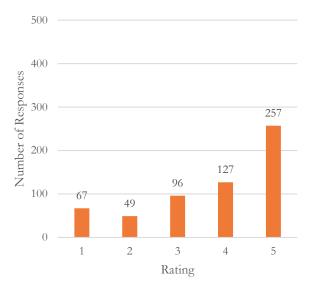
Intersection Modification

This option would close the channelized southbound right-turn lane to calm traffic and make it easier for cyclists and pedestrians to cross the road. This option improves safety and comfort by reducing speeds, while maintaining travel times for cars and buses and reducing pedestrian delay at crossings. It would also improve crossings for non-motorized users to make them more accessible according to the Americans with Disabilities Act (ADA). This option can be accomplished within the existing public right-of-way. It reduces drainage impacts by increasing available space for landscaping.

The majority of respondents (64% - 384) gave the intersection modification a score of 4 or 5 (**Figure 13**). The high scores indicate that this option is preferable to the existing intersection design.



Figure 13. Rate the intersection modification of 5th Street and Harris Road



Key Takeaways

Survey respondents preferred the Harris Road intersection modification option to the existing intersection configuration. Most respondents gave the intersection modification a rating of 4/5 or 5/5.



Figure 14. Existing Intersection of 5th Street and Harris Road



Figure 15. Intersection Modification, 5th Street and Harris Road





5th Street Station Parkway

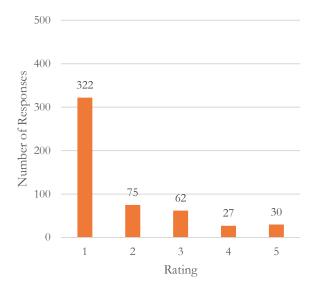
Respondents were provided with three different transportation options for the intersection of 5th Street and 5th Street Station Parkway. The transportation options included no change to the existing intersection (**Figure 19**), expanding the intersection (**Figure 20**), and restricting left-turn access into and out of Willoughby Square Shopping Center (**Figure 21**).

No Change

Without changes, the signalized intersection at 5th Street and 5th Street Station Parkway will continue to experience safety and congestion challenges related to turning vehicles and long queues. Pedestrians will continue to be delayed at crossings.

Most respondents gave this option a score of 1 or 2 (77% - 397) with 322 respondents (62%) rating it the least preferable option (**Figure 16**). The average rating for this option (1.77) was significantly lower than the average ratings for the expanded intersection option (3.36) and the restricted left turn option (3.22).

Figure 16. Rate the existing intersection at 5th Street and 5th Street Station Parkway

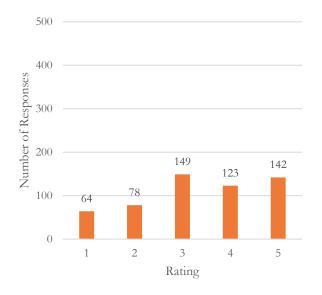


Expand Intersection

This option improves travel times for cars and buses by expanding the size of the intersection to add turning lanes into and out of 5th Street Station Parkway. Reducing queues and delays may reduce motorized vehicle crashes. The safety tradeoff associated with this change is increased crossing distances and exposure for pedestrians. This option will improve existing ADA-accessible crossings for non-motorized users and maintain non-motorized connections to employment and transit. This option cannot be accomplished within the existing public right-of-way and increases drainage impacts by expanding the paved surface of the roadway.

Based on average rating, this option scored the highest (3.36) and therefore is the most preferred option for 5th Street Station Parkway. However, over 25% of respondents gave this option a score of 1 or 2 (**Figure 17**). Though expanding the intersection had the highest average score, it was not overwhelmingly popular with respondents.

Figure 17. Rate the expanded intersection of 5th Street and 5th Street Station Parkway





Left-Turn Restrictions

This option would improve wait times for cars and buses by restricting left-turn access into and out of Willoughby Square Shopping Center from 5th Street and 5th Street Station Parkway. Motorists who want to access Willoughby Square Shopping Center from the south would be able to do so through a new median opening north of 5th Street Station Parkway. Motorists who wish to exit the shopping center and travel north on 5th Street could do so by way of the Harris Road intersection. This option would improve existing ADA-accessible crossings for non-motorized users and maintain non-motorized connections to employment and transit. This option would impact the east side of 5th Street due to widening for the added lane and would slightly increase drainage impacts by opening the median north of 5th Street Station Parkway.

Similar to the results for the expansion of 5th Street Station Parkway, this option was rated more favorably than the existing intersection. Though the average rating was greater than that of the existing intersection, respondents had relatively mixed opinions about this option. Similar numbers of respondents gave this option a score of 1 (22% - 113), 3 (25% - 129), 4 (24% - 124), and 5 (26% - 136) (**Figure 18**).

Key Takeaways

Survey respondents slightly preferred the expand intersection option to the left turn restrictions option.

Figure 18. Rate the intersection of 5th Street and 5th Street Station Parkway with restricted left-

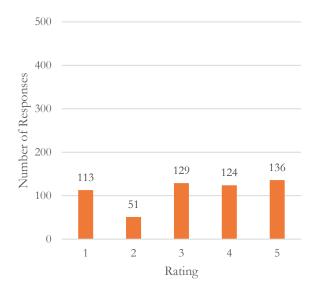




Figure 19. Existing Intersection of 5th Street and 5th Street Station Parkway

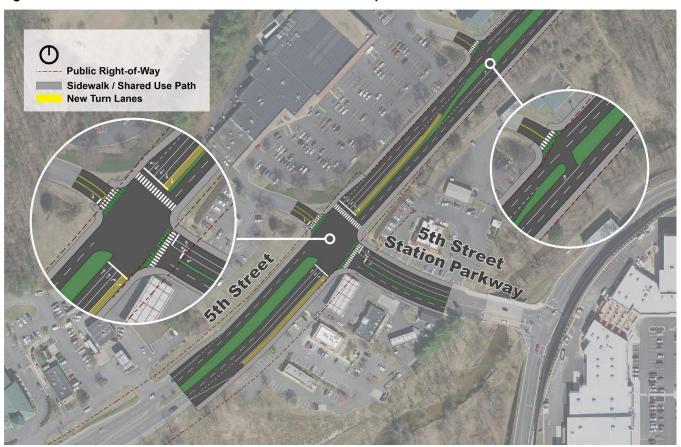


Figure 20. Intersection Expansion of 5th Street and 5th Street Station Parkway





Figure 21. Intersection of 5th Street and 5th Street Station Parkway with Left-Turn Restrictions





I-64 Interchange

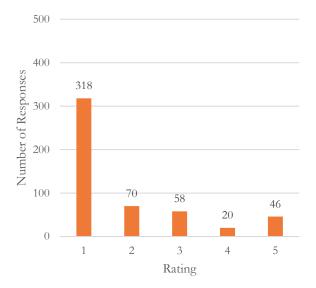
Respondents were provided with three different transportation options for the intersection of 5th Street and the I-64 Interchange. The transportation options included no change to the existing intersection (**Figure 25**), near-term changes to the intersection (**Figure 26**), and long-term changes to the intersection (**Figure 27**). The long-term change to the intersection would be to convert it into a diverging diamond interchange.

No Change

5th Street at the I-64 interchange poses safety challenges at both signalized ramp intersections related to turning vehicles and long vehicle queues. It also experiences congestion at the 5th Street and I-64 eastbound ramp. A narrow concrete walkway on the bridge is the only non-motorized accommodation.

Most respondents rated the existing intersection the least preferable option (58% - 318) (**Figure 22**). The average rating (1.84) was significantly lower than the average ratings for the near-term option (3.32) or the long-term option (3.33).

Figure 22. Rate the existing intersection of 5th Street and the I-64 Interchange

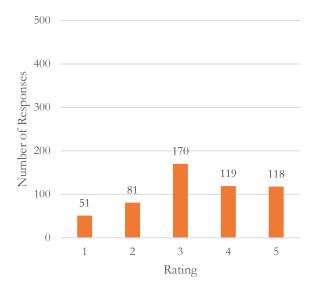


Near-Term Changes

The near-term option would focus on adding crosswalks at intersections and wider sidewalks on both sides of the bridge to improve non-motorized users' safety and comfort. This option would increase multimodal connections to employment and transit.

Most respondents gave this option a score of 3 or higher (76% - 407) with the majority awarding a score of 3 (31% - 170) (**Figure 23**). A score of 3 indicates that this option is neither liked nor disliked by respondents.

Figure 23. Rate the near-term conditions for the intersection of 5th Street and the I-64 Interchange



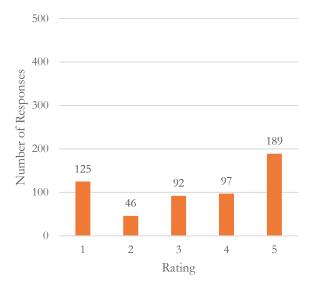
Long-Term Changes - Diverging Diamond

The long-term option would convert the I-64 interchange into a diverging diamond interchange (DDI). A DDI is a grade-separated interchange design. The major road, 5th Street, would cross to the other side of the roadway between freeway ramps. This design would reduce vehicle conflict points and separate vehicles from bicyclists and pedestrians. It would improve travel times for cars and buses and add ADA-accessible crossings for bicyclists and pedestrians. This option would have substantial right-of-way and drainage impacts.



Similar to the results for the near-term conditions of the I-64 interchange, this option was rated more favorably than the existing intersection. Though the average rating was the highest of the provided options (3.33), respondents had relatively mixed opinions about the DDI. Over a third of respondents (34% - 189) rated this option as the most preferable, whereas approximately a fourth (23% - 125) rated it least preferable (**Figure 24**). The mixed ratings resulted into a relatively high average score despite many respondents strongly opposing this option.

Figure 24. Rate the DDI design for the intersection of 5th Street and the I-64 Interchange



Key Takeaways

Most survey respondents gave the near-term option for the I-64 interchange a rating of 3 or higher. Survey respondents had mixed opinions about the long-term option for the I-64 interchange.



Figure 25. Existing I-64 Interchange



Figure 26. I-64 Intersection Near-Term Options

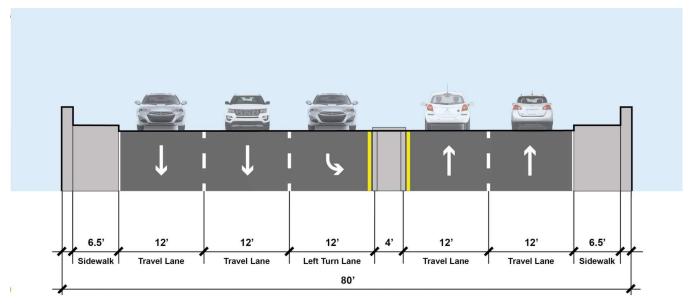


Figure 27. I-64 Interchange Long-Term Options (Diverging Diamond at Zion's Crossroads)





Stagecoach Road

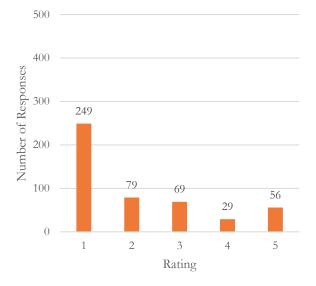
Respondents were provided with three different transportation options for the intersection of 5th Street and Stagecoach Road. The transportation options included no change to the existing intersection (**Figure 31**), a multilane roundabout (**Figure 32**), and a restricted crossing U-turn (RCUT) (**Figure 33**).

No Change

The intersection of 5th Street and Stagecoach Road will continue to experience safety and congestion challenges related to turning vehicles. Pedestrians will not have designated, ADA-accessible crossings, and multimodal facilities will remain disconnected from employment and transit opportunities.

Most respondents gave this option a score of 1 or 2 (68% - 328) with 249 respondents (52%) rating it the least preferable option (**Figure 28**). The average rating (2.09) was lower than the average ratings for the roundabout (3.83) and the RCUT (2.71).

Figure 28. Rate the existing intersection of 5th Street and Stagecoach Road

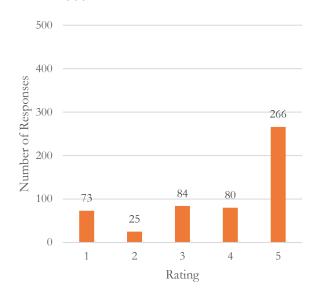


Roundabout

This option would replace the unsignalized intersection with a roundabout. Roundabouts improve safety by calming traffic, reducing vehicle conflict points, and adding ADA-accessible pedestrian crossing opportunities. This option would slightly improve travel times and connect multimodal facilities to employment and transit opportunities. The roundabout would have some right-of-way impacts but would reduce drainage impacts by increasing available space for landscaping.

Half of respondents (50% - 266) rated the roundabout the most preferred option for this intersection (**Figure 29**). The roundabout was significantly more popular than the existing intersection and the RCUT design. Additionally, the lowest number of respondents rated this option least preferable (14% - 73). Replacing the unsignalized intersection with a roundabout is the recommended option for the intersection of 5th Street and Stagecoach Road based on survey responses.

Figure 29. Rate the roundabout design for the intersection of 5th Street and Stagecoach Road



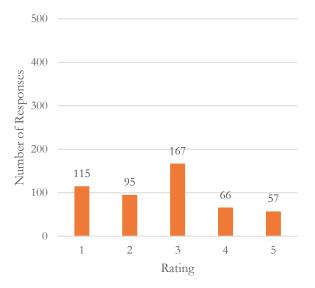


Restricted Crossing U-Turn

This option would replace the unsignalized intersection with an unsignalized RCUT. An RCUT is an intersection design where all side street movements begin with a right turn. Side street left-turning and through vehicles would turn right and make a U-turn at a dedicated downstream median opening to complete the desired movement. This option would improve safety by reducing vehicle conflict points and adding ADA-accessible pedestrian crossings. This option would also slightly improve travel times for cars and buses on 5th Street, while slightly increasing travel times for vehicles turning left onto 5th Street. It would connect multimodal facilities to employment and transit opportunities. The RCUT would have minor right-of-way and drainage impacts due to the median opening required west of Stagecoach Road.

Based on the average rating, this option (2.71) was more popular than the existing intersection (2.09). However, the majority of respondents gave it a score of 3 or lower (75% - 377) indicating that they were either indifferent towards or disliked the RCUT design (**Figure 30**).

Figure 30. Rate the RCUT design for the intersection of 5th Street and Stagecoach Road



Key Takeaways

Survey respondents preferred the roundabout option, with over half of survey respondents giving the option a rating of 5/5. Survey respondents had mixed opinions about the RCUT option for Stagecoach Road, with the majority of respondents giving it a rating of 3 or lower.



Figure 31. Existing Intersection of 5th Street and Stagecoach Road



Figure 32. Roundabout at intersection of 5th Street and Stagecoach Road

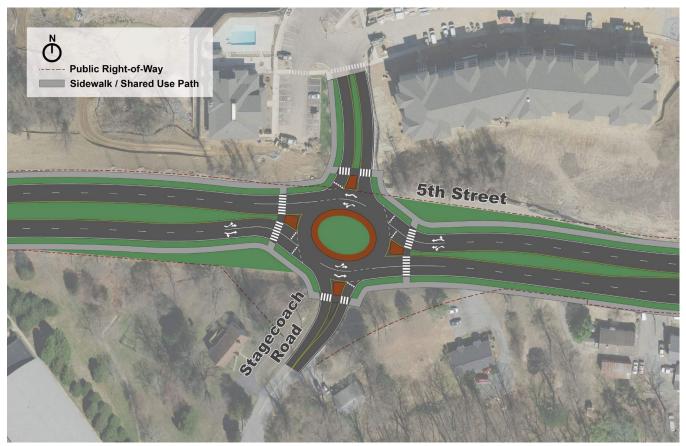
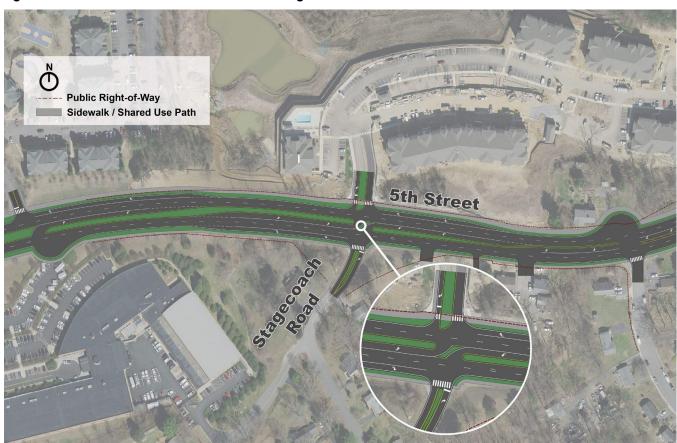


Figure 33. RCUT at intersection of 5th Street and Stagecoach Road





Old Lynchburg Road

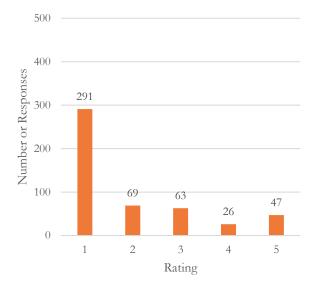
Respondents were provided with three different transportation options for the intersection of 5th Street and Old Lynchburg Road. These included no change to the existing intersection (**Figure 37**), a multilane roundabout (**Figure 38**), and an RCUT (**Figure 39**).

No Change

If left as it is, the intersection of 5th Street and Old Lynchburg Road will continue to experience safety and congestion challenges related to turning vehicles. Pedestrians will not have designated, ADA-accessible crossings, and multimodal facilities will remain disconnected from employment and transit opportunities.

Most respondents gave this option a score of 1 or 2 (72% - 360) with 291 respondents (53%) rating it the least preferable option (**Figure 34**). The average rating (1.93) was lower than the average ratings for the roundabout (4.01) and the RCUT (2.44). The existing intersection of 5th Street and Old Lynchburg Road received the lowest average rating of any of the proposed intersection designs.

Figure 34. Rate the existing intersection of 5th Street and Old Lynchburg Road

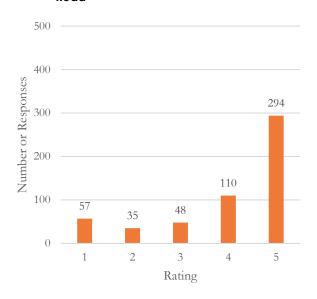


Roundabout

This option would replace the unsignalized intersection with a roundabout. Roundabouts improve safety by calming traffic, reducing vehicle conflict points, and adding ADA-accessible pedestrian crossing opportunities. This option would slightly improve travel times and connect multimodal facilities to employment and transit opportunities. The roundabout would have some right-of-way impacts but would reduce drainage by increasing available space for landscaping.

Over half of respondents (54% - 294) rated the roundabout the most preferred transportation option for this intersection (**Figure 35**). The roundabout was significantly more popular than the existing intersection and the RCUT design. Additionally, the lowest number of respondents rated this option least preferable (10% - 57). This option received the highest average rating of any of the proposed intersection designs.

Figure 35. Rate the roundabout design for the intersection of 5th Street and Old Lynchburg Road



Restricted Crossing U-Turn

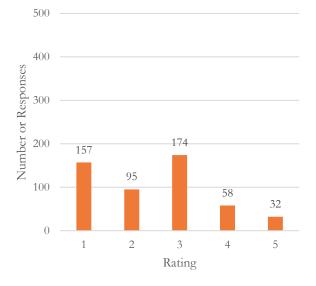
This option would replace the unsignalized intersection with an unsignalized RCUT. Side street left-turning and through vehicles would turn



right and make a U-turn at a dedicated downstream median opening to complete the desired movement. This option would improve safety by reducing vehicle conflict points. It would also slightly improve travel times for cars and buses on 5th Street, while slightly increasing travel times for vehicles turning left onto 5th Street. It would connect multimodal facilities to employment and transit opportunities. The RCUT would have minor right-of-way and drainage impacts due to opening the median west of Old Lynchburg Road.

Based on average rating, this option (2.44) was more popular than the existing intersection (1.93). However, the majority of respondents gave it a score of 3 or lower (83% - 426) indicating that they were either indifferent towards or disliked the RCUT design (**Figure 36**).

Figure 36. Rate the RCUT design for the intersection of 5th Street and Old Lynchburg Road



Key Takeaways

Survey respondents preferred the roundabout option, with over half of survey respondents giving the option a rating of 5/5. Survey respondents had mixed opinions about the RCUT option for Old Lynchburg Road, with the majority of respondents giving it a rating of 3 or lower.



Figure 37. Existing intersection of 5th Street and Old Lynchburg Road

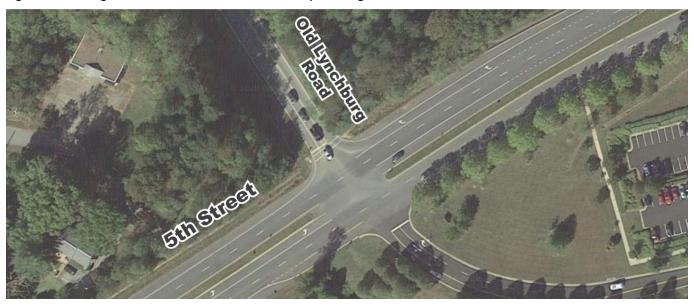


Figure 38. Roundabout at intersection of 5th Street and Old Lynchburg Road

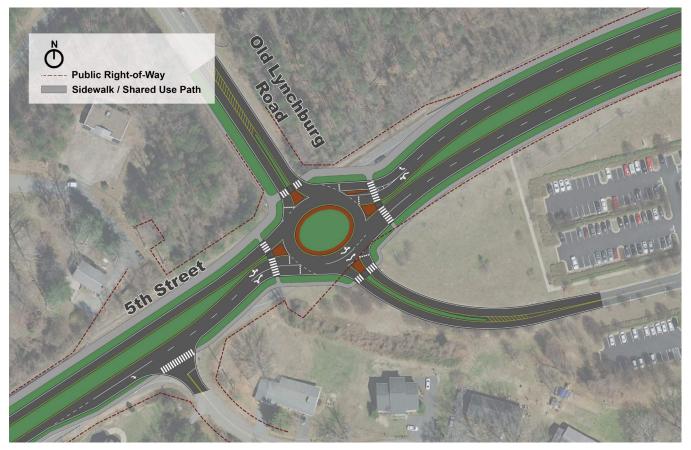




Figure 39. RCUT at intersection of 5th Street and Old Lynchburg Road





3.0 PUBLIC MEETING

VDOT hosted the 5th Street Alternatives Public Meeting on June 4, 2020. The meeting was held online due to restrictions in place during the COVID-19 outbreak. Meeting attendees included community members who live, work, or commute along 5th Street. VDOT shared a slideshow presentation and facilitated a question and answer session following the presentation. Attendees were provided with a link to the survey and asked to provide feedback about the alternatives.

Attachment C includes English and Spanish copies of the presentation shared at the 5th Street Alternatives Public Meeting.

5th Street Alternatives Public Meeting Feedback

While community members did not give VDOT detailed feedback during the presentation, they did have the opportunity to ask questions afterward.

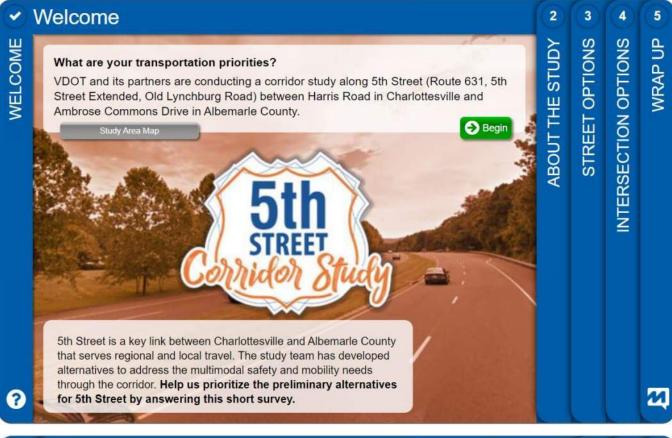
Attachment D includes questions that were answered during the meeting and others not addressed due to time constraints.

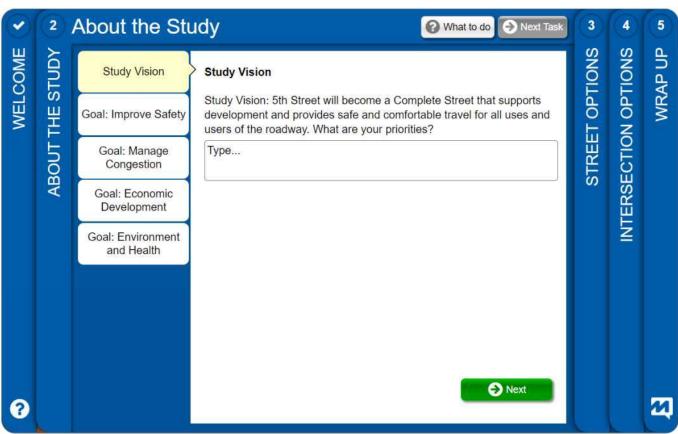
4.0 CONCLUSION AND NEXT STEPS

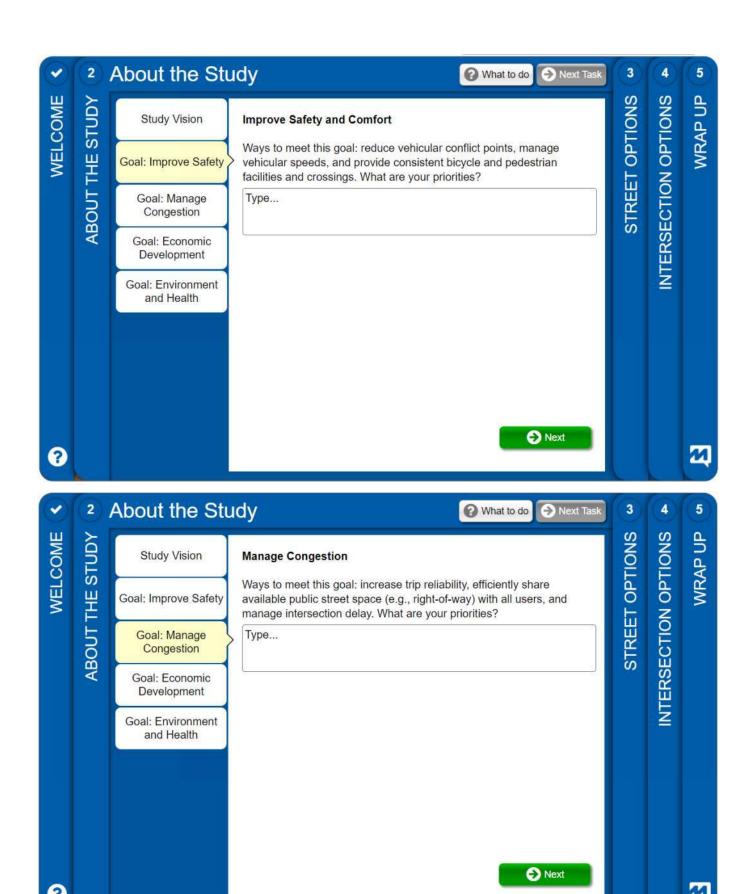
The findings presented in this memorandum will inform the processes for refining the transportation alternatives recommended in the final report. VDOT will use insights from the phase 2 public engagement process to revise transportation alternatives that will help meet the vision and goals of the study. The final report will include short-, mid-, and long-term transportation alternatives revised based on the study evaluation measures and community input.

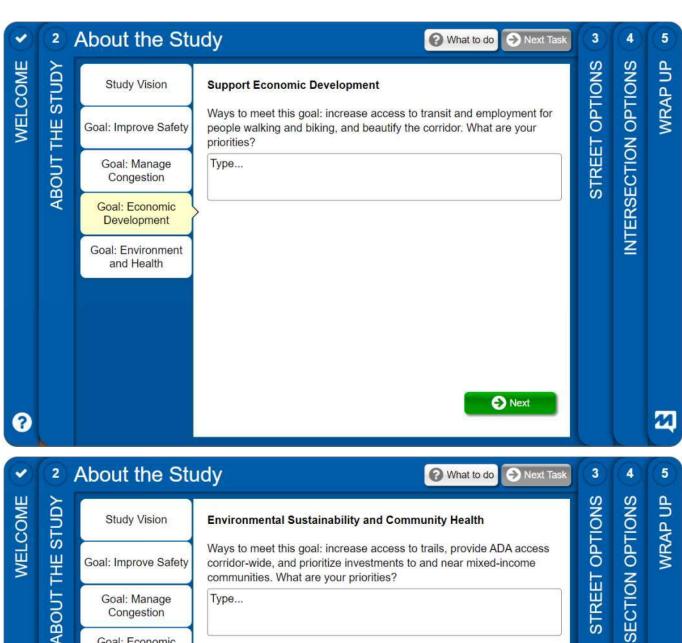


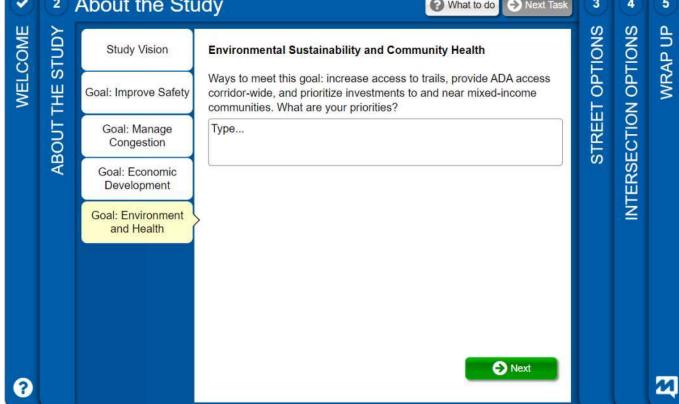
Attachment A Phase 2 Survey



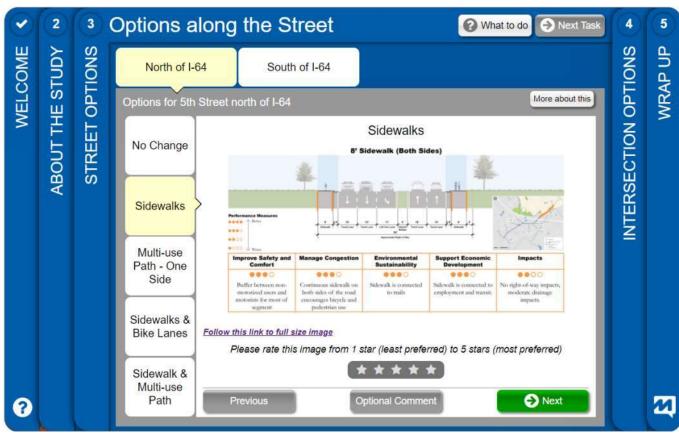


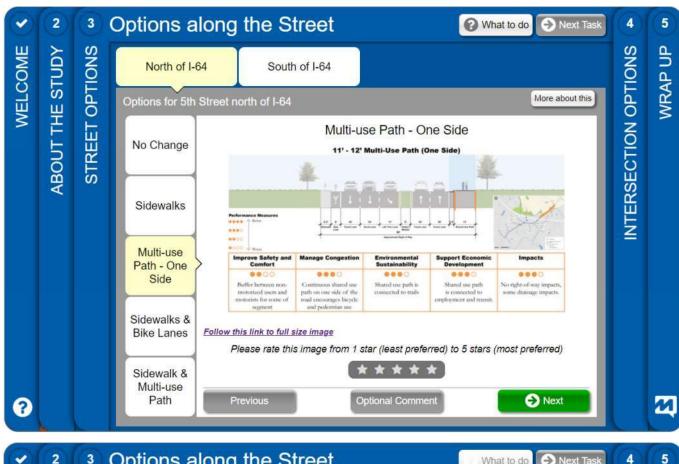


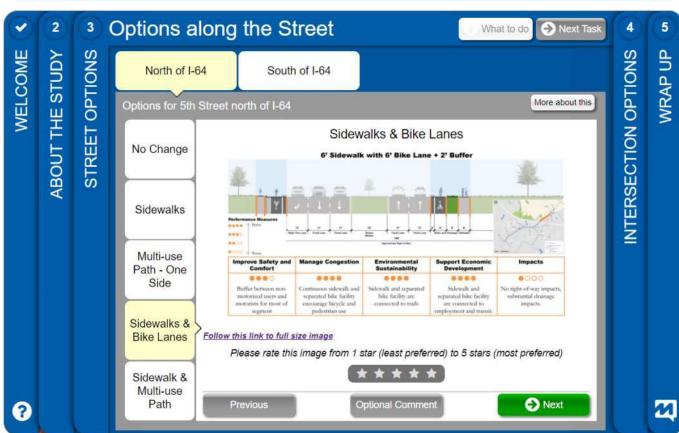




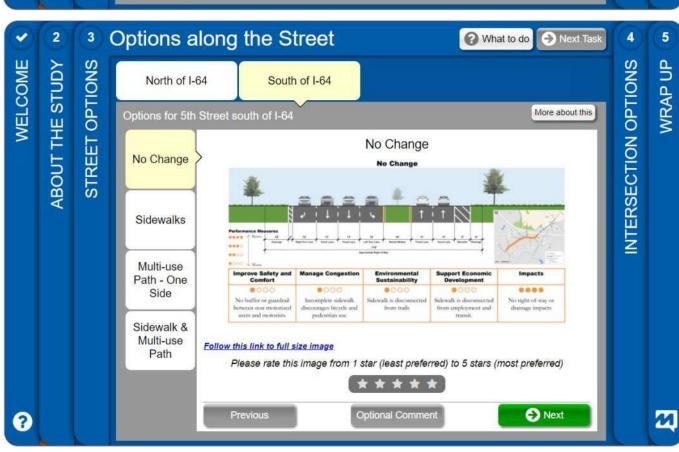


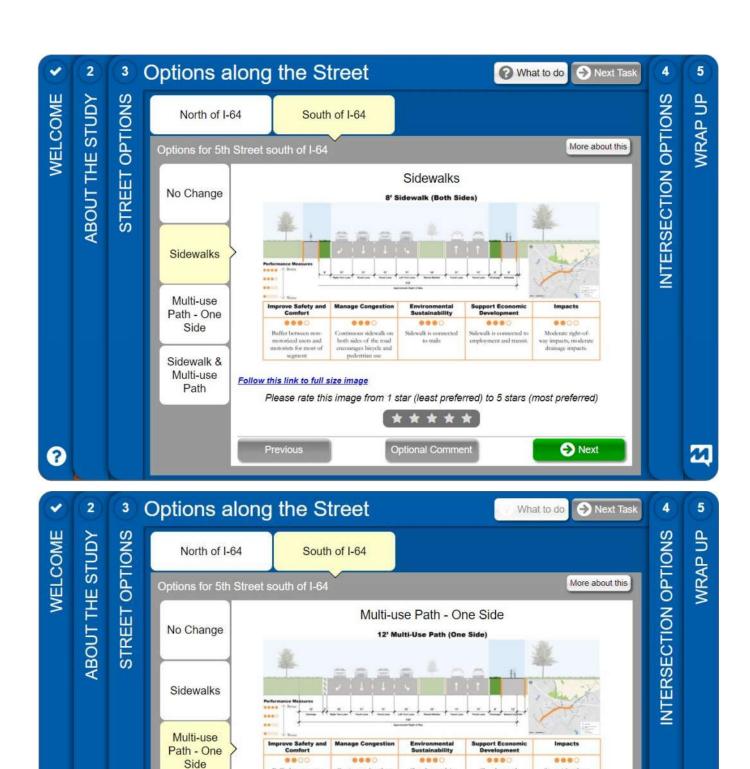












motorized users and motorists for some of

Follow this link to full size image

Previous

Sidewalk & Multi-use

Path

0

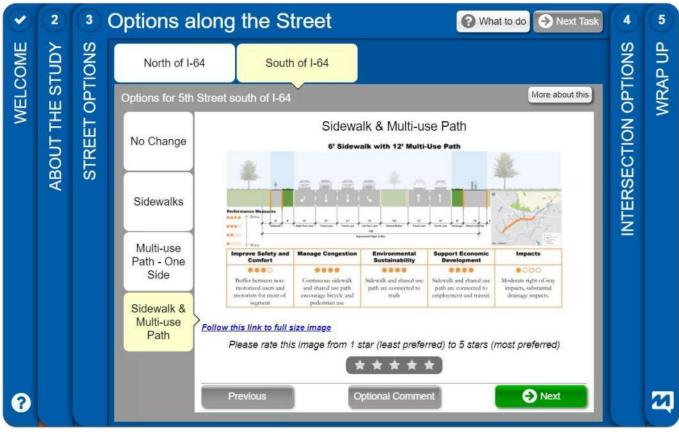
Shared use path is connected to

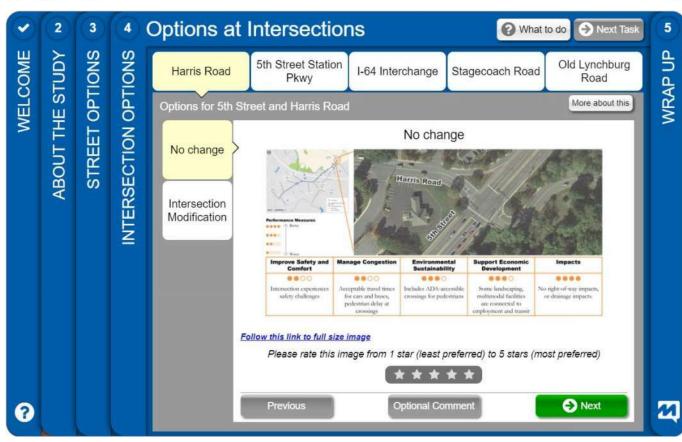
impacts.

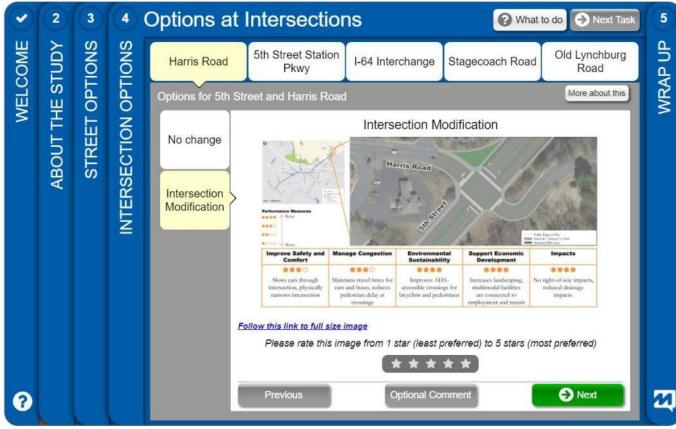
Next

employment and true

Optional Comment

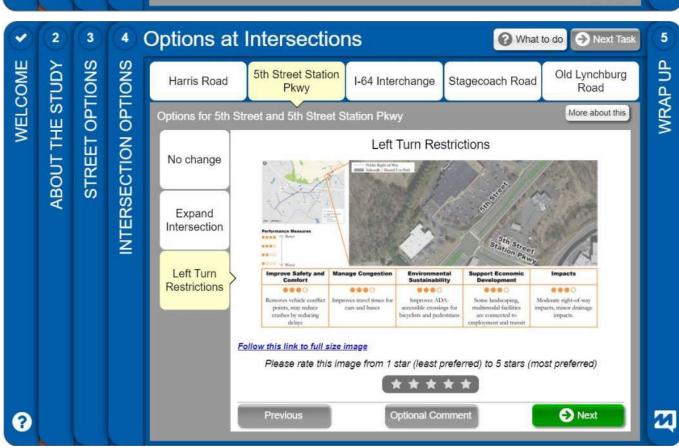


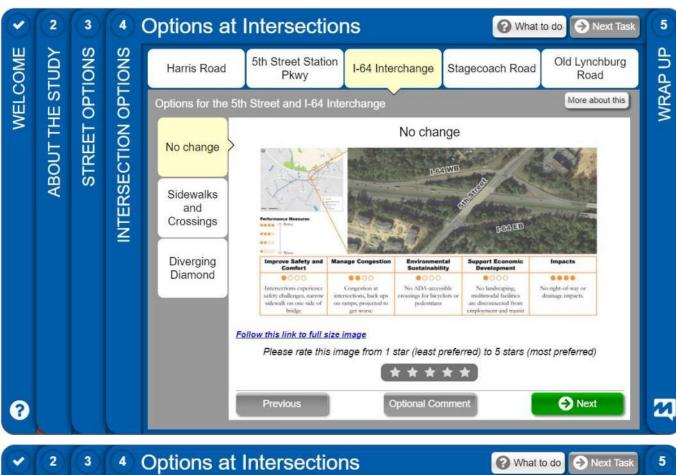




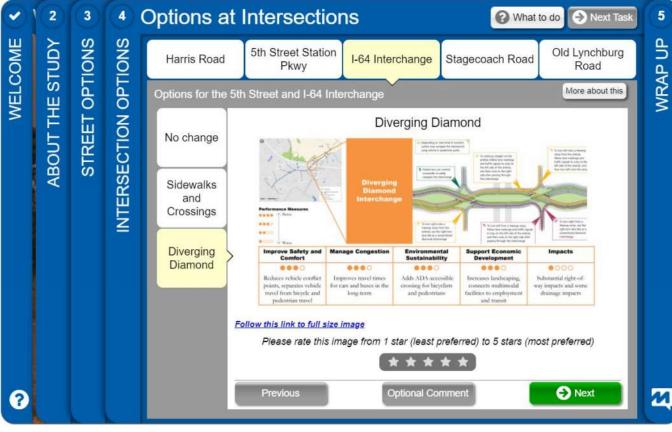




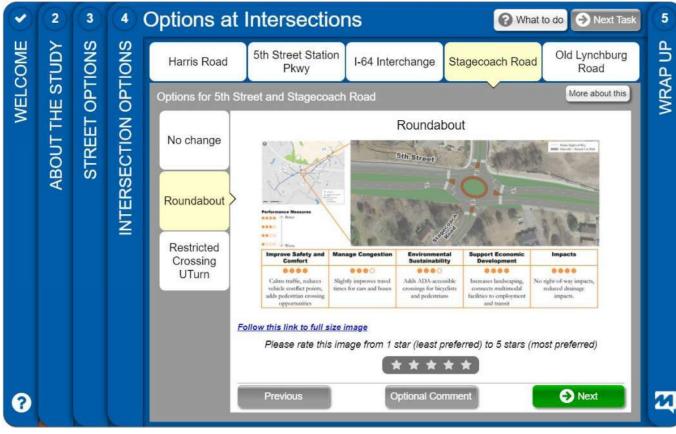


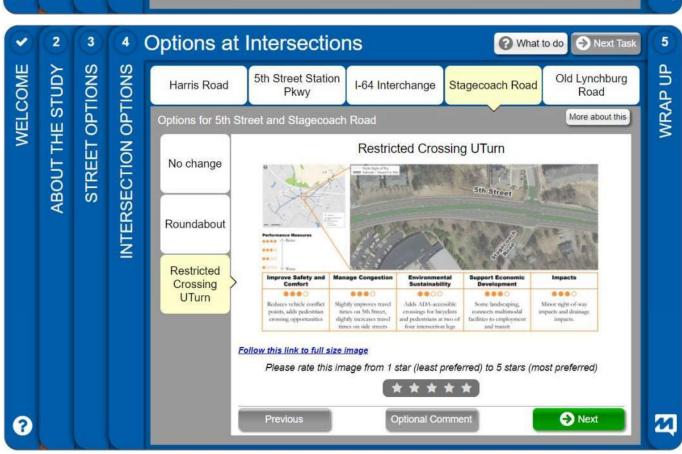


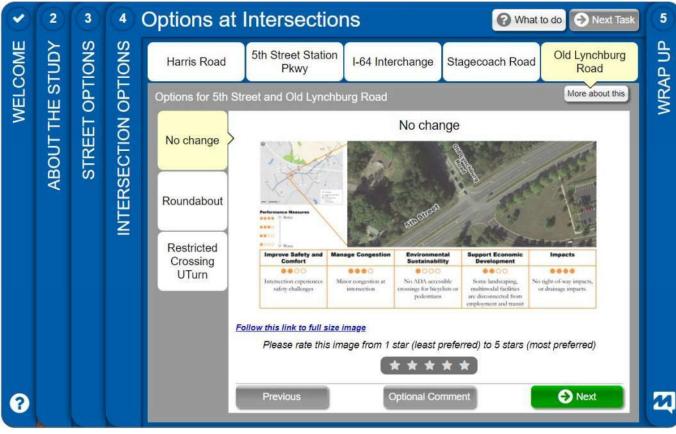


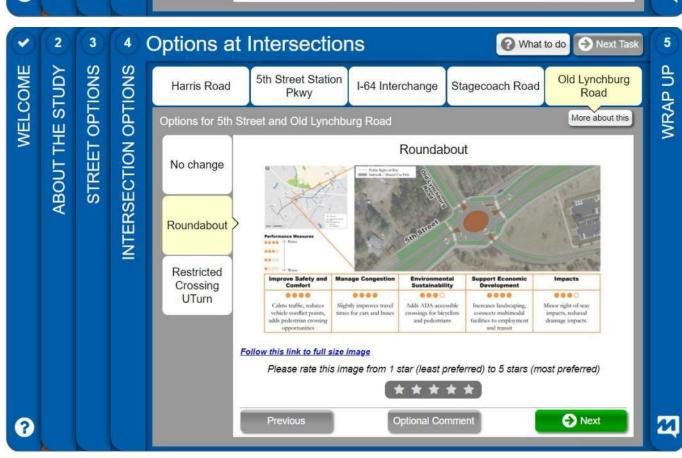


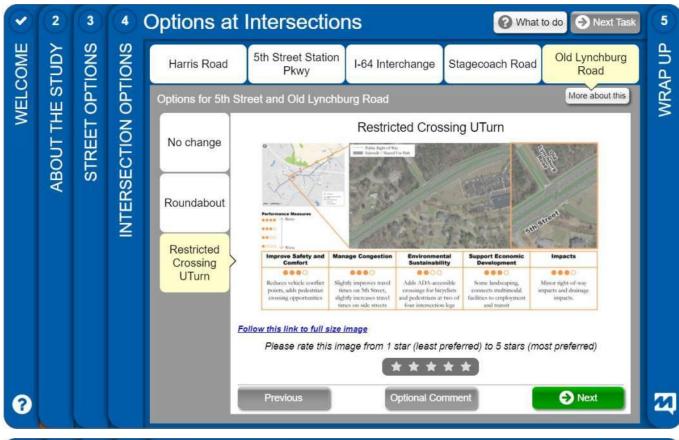


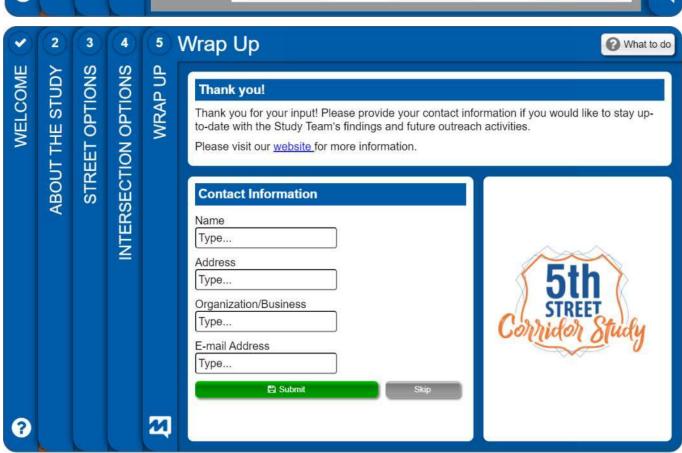












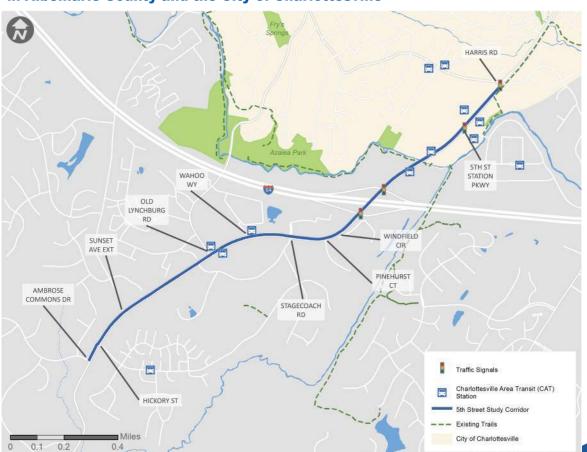
Attachment B Phase 2 Survey Recruitment Materials

Participate in our Alternatives Public Meeting and Survey

VDOT



VDOT 5th Street (Route 631/Old Lynchburg Road) Corridor Study in Albemarle County and the City of Charlottesville



Please join VDOT to hear more about the 5th Street Corridor Study.

Online Public Meeting

Date: June 4, 2020

Time:

6 p.m. - 6:30 p.m. EST – presentation

6:30 p.m. - 7 p.m. EST – question and answer session

The meeting will require pre-registration at bit.ly/5thstreetwebinar

A copy of the meeting presentation materials will be provided to all registered meeting attendees and will also be posted to the project website one week in advance of the meeting.

PROJECT BACKGROUND

The 5th Street (Route 631/Old Lynchburg Road) corridor improvement study will evaluate automobile, transit, bicycle, and pedestrian conditions along 5th Street between Harris Road and Ambrose Commons Drive in the City of Charlottesville and Albemarle County. The study will assess future travel projections and development patterns. It will generate a range of short- and long-term investments to address the study goals and objectives.

PROJECT VISION

The study vision is for 5th Street to develop as a Complete Street that supports development and provides safe and comfortable travel for all uses and users of the roadway.

HOW TO ACCESS THE ONLINE PUBLIC MEETING

Pre-registration is required to attend the June 4, 2020 online public meeting. A computer or smart phone will be needed to gain access. If you plan to use your smart phone, please download the GoToWebinar app in advance of the meeting and pre-register at bit.ly/5thstreetwebinar. If you do not have access to a computer or smart phone, please contact Chuck Proctor, District Planning Manager via email or phone: charles.proctor@vdot.virginia.gov | 540-829-7558.

LET US KNOW WHAT YOU THINK

Help us identify transportation solutions for 5th Street by taking our survey. The survey will be available from May 28, 2020 through June 26, 2020. Visit the project website at www.virginiadot.org/projects/culpeper/5th-st-corridor-study.asp to take the survey.

VDOT ensures nondiscrimination and equal employment in all programs and activities in accordance with Title VI and VII of the Civil Rights Act of 1964. If you need more information or special assistance for persons with disabilities or limited English proficiency, contact VDOT's Civil Rights Division at 757-925- 2500, 800-611-5812 or TTY/TDD 711.

Culpeper District 1601 Orange Road Culpeper, Virginia 22701

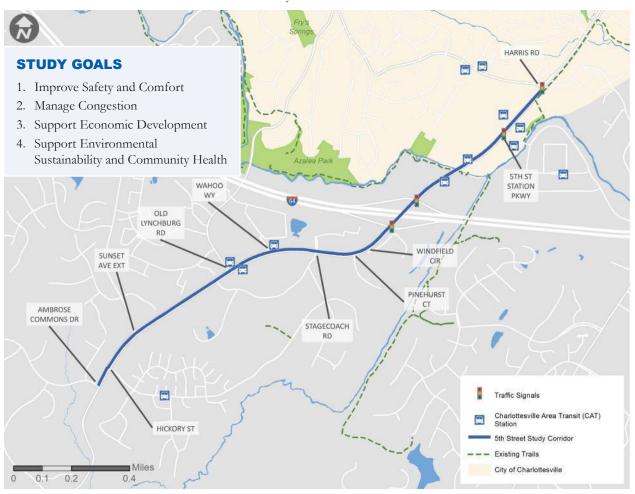
VDOT 5th Street (Route 631/Old Lynchburg Road) Corridor Study in Albemarle County and the City of Charlottesville

5th STREET Connidor Study

PROJECT BACKGROUND

The 5th Street (Route 631/Old Lynchburg Road) corridor improvement study will evaluate automobile, transit, bicycle, and pedestrian conditions along 5th Street between Harris Road and Ambrose Commons Drive in the City of Charlottesville and Albemarle County. The study will assess future travel projections and development patterns. It will generate a range of short- and long-term investments to address the study goals and objectives.

The study vision is for 5th Street to develop as a Complete Street that supports development and provides safe and comfortable travel for all uses and users of the roadway.



5TH STREET CORRIDOR STUDY ONLINE PUBLIC MEETING

Please join VDOT to hear more about the 5th Street Corridor Study.

Online Public Meeting Date: June 4, 2020

Time: 6 p.m. - 6:30 p.m. EST – presentation 6:30 p.m. - 7 p.m. EST – question and answer session

The meeting will require pre-registration at bit.ly/5thstreetwebinar

A copy of the meeting presentation materials will be provided to all registered meeting attendees and will also be posted to the project website one week in advance of the meeting.

LET US KNOW WHAT YOU THINK

The Study Team is conducting a second survey on specific transportation options for 5th Street. The survey will be available from May 28, 2020 through June 26, 2020.

You can visit the project website to access the survey for the 5th Street Corridor Study:

www.virginiadot.org/projects/ culpeper/5th-st-corridor-study.asp

Please share your feedback by taking the survey.

FOR MORE INFORMATION, PLEASE CONTACT:

Chuck Proctor, District Planning Manager charles.proctor@vdot.virginia.gov 540-829-7558

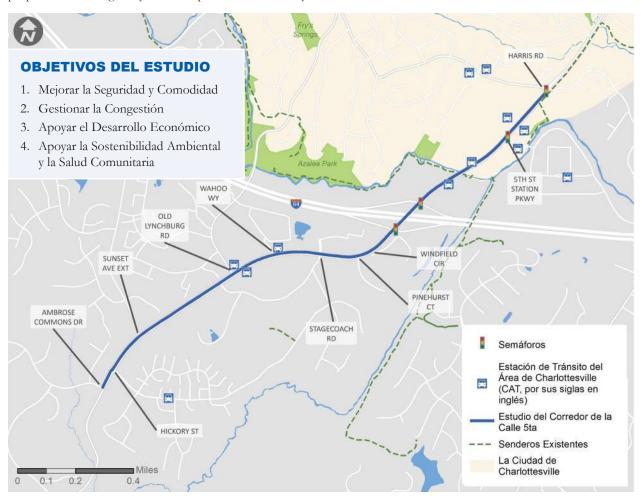
VDOT ensures nondiscrimination and equal employment in all programs and activities in accordance with Title VI and VII of the Civil Rights Act of 1964. If you need more information or special assistance for persons with disabilities or limited English proficiency, contact VDOT's Civil Rights Division at 757-925-2500, 800-611-5812 or TTY/TDD 711.

Estudio del Corredor de la Calle 5ta (Ruta 631, Old Lynchburg Road) en la Ciudad de Charlottesville y el Condado de Albemarle

ANTECEDENTES DEL PROYECTO

El estudio del corredor de la Calle 5ta (Ruta 631/Old Lynchburg Road) evaluará las condiciones existentes de vehículos, transporte público, ciclistas, y peatones a lo largo de la Calle 5ta entre Harris Road y Ambrose Comamos Drive en la ciudad de Charlottesville y el condado de Albemarle. El estudio evaluará proyecciones del número de viajes futuros y patrones del desarrollo urbano. Se propondrán recomendaciones a corto y largo plazo para abordar las metas y los objetivos del estudio.

La visión del estudio es que la Calle 5ta se desarrolle como una Calle Completa que respalde el desarrollo urbano y proporcione vías seguras y cómodas para todos sus usos y usuarios



REUNIÓN PUBLICA VIRTUAL DEL ESTUDIO DEL CORREDOR DE LA CALLE 5TA

Por favor únase a VDOT para escuchar más sobre el Estudio del Corredor de la Calle 5ta.

Reunión Publica Virtual Fecha: 4 de junio de 2020

Horario: 6 p.m. – 6:30 p.m. EST – presentación 6:30 p.m. – 7 p.m. EST – sesión de preguntas y respuestas

La reunión requiere registración previa, disponible en bit.ly/5thstreetwebinar

Se proveerá una copia de los materiales presentados en la reunión a todos los participantes que se hayan registrado y también será publicada en la página web del proyecto una semana antes de la reunión.

DÍGANOS LO QUE PIENSA

El equipo del estudio está administrando una segunda encuesta sobre alternativas específicas de transporte para la Calle 5ta. La encuesta estará disponible desde el 28 de mayo de 2020 hasta el 26 de junio de 2020. Visite la página web para compartir sus comentarios sobre el Corredor de la Calle 5ta:

www.virginiadot.org/projects/ culpeper/5th-st-corridor-study.

asp. Por favor comparta sus opiniones respondiendo a esta encuesta.

PARA MÁS INFORMACIÓN, COMUNÍQUESE CON:

Chuck Proctor,
District Planning Manager
charles.proctor@vdot.virginia.gov
540-829-7558

VDOT garantiza la ausencia de discriminación y la igualdad de oportunidades de empleo en todos los programas y actividades, de conformidad con los Títulos VI y VII de la Ley de Derechos Civiles de 1964. Si usted necesita más información o asistencia especial para personas con discapacidades o competencia limitada en el idioma inglés, comuníquese con Derechos Civiles (Civil Rights) de VDOT, al 757-925-2500, 800-611-5812 o TDD/TTY 711.

Attachment C 5th Street
Alternatives
Presentation



This script accompanies the PowerPoint slides for the 5^{th} Street Alternatives Public Meeting. The 5^{th} Street Alternatives Public meeting will be held on June 4, 2020 between 6 p.m. – 7 p.m. EDT. The presentation will begin at 6 p.m., followed by a question and answer session from 6:30 p.m. to 7 p.m. The meeting requires preregistration at bit.ly/5thstreetwebinar

Today's Speakers



Charles Proctor Planning Manager VDOT Culpeper District



Patty Hurd Project Manager Kittelson & Associates, Inc.



Transportation Planner Kittelson & Associates, Inc.



Meredyth Sanders Mateo Van Thienen Moderator Kittelson & Associates, Inc.

INTRO

Today's speakers include members of the 5th Street Corridor study team. Charles Proctor is available to answer questions during the question and answer portion of the meeting. Patty Hurd is the project manager, and Meredyth Sanders is a transportation planner on the study team. Mateo Van Thienen is a transportation analyst on the study team and will serve as the moderator during the question and answer portion of the meeting.

3

Meeting Goals

- To share:
 - Why the study is happening
 - What has been learned so far
 - Preliminary Alternatives
 - Next steps
- To answer your questions



6

INTRO

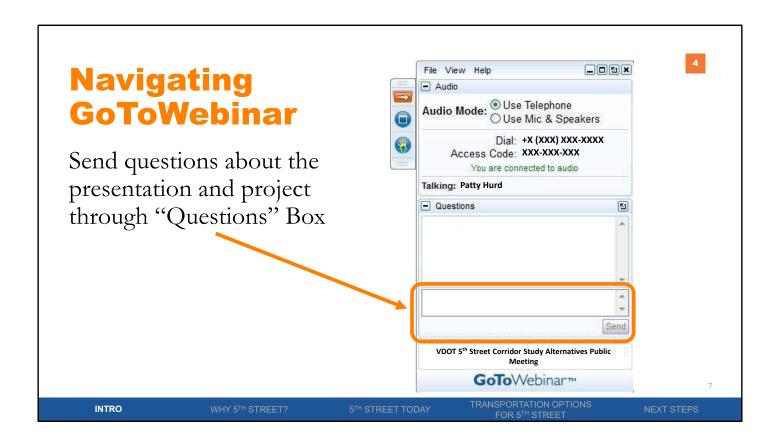
WHY 5TH STREET?

5TH STREET TODA

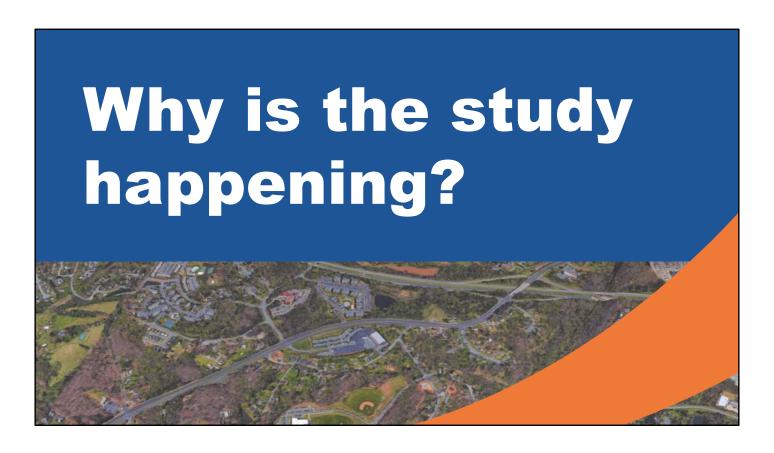
RANSPORTATION OPTIONS FOR 5TH STREET

NEXT STEPS

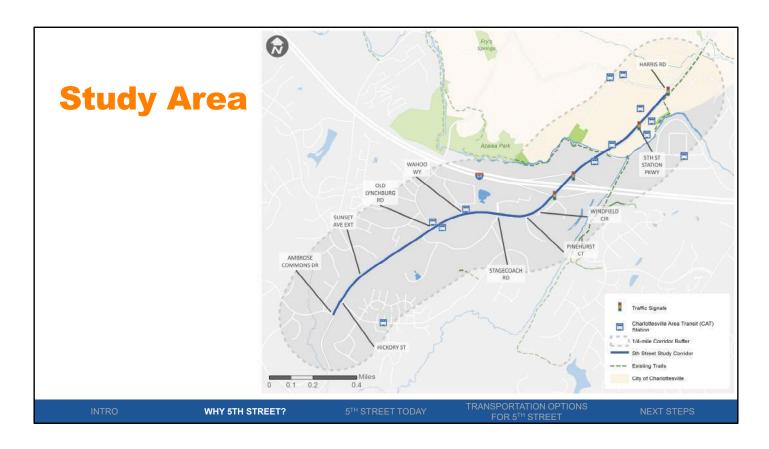
During the first thirty minutes of today's meeting we will share why the study is happening, what has been learned so far, transportation options for 5th Street, and next steps. The final thirty minutes of today's meeting will be dedicated to a question and answer session.



To ask questions at any time during today's meeting, please post them in the "Questions Box" in your GoToWebinar window. Mateo will review questions received throughout the presentation and will read them out loud during the question and answer session.



First, we will share why VDOT decided to conduct the 5th Street Corridor Study.



The 5th Street study area runs 2 miles along 5th Street between Harris Road in Charlottesville and Ambrose Commons Drive in Albemarle County. It is one of the only major north-south routes connecting people traveling between the City and the County south of Charlottesville. It also serves as a regional gateway to Interstate 64 via the I-64 interchange.

Several new developments are planned to take place along the corridor, including the mixed-use Southwood Development. These new developments will increase the number of people who rely on 5th Street to access their residences, places of employment, shopping needs, and recreational destinations.

Study Purpose

- Evaluate existing automobile, transit, bicycle, and pedestrian conditions
- Assess future travel projections and development patterns
- Generate alternatives
- Evaluate alternatives against goals and through community input
- Recommend a system of investments

INTRO WHY 5TH STREET? 5TH STREET TODAY FOR 5TH STREET NEXT STEP

VDOT decided to conduct the 5th Street study to understand if and how the 5th Street corridor should evolve to meet the changing needs of corridor uses and users. The study will evaluate existing automobile, transit, bicycle, and pedestrian conditions, assess future travel projections and development patterns, generate a range of multimodal solutions to address the study goals and objectives, and test the application and relevance of multimodal solutions through community input.



The study vision is for 5th Street to become a complete street that supports development and provides safe and comfortable travel for all uses and users of the roadway.

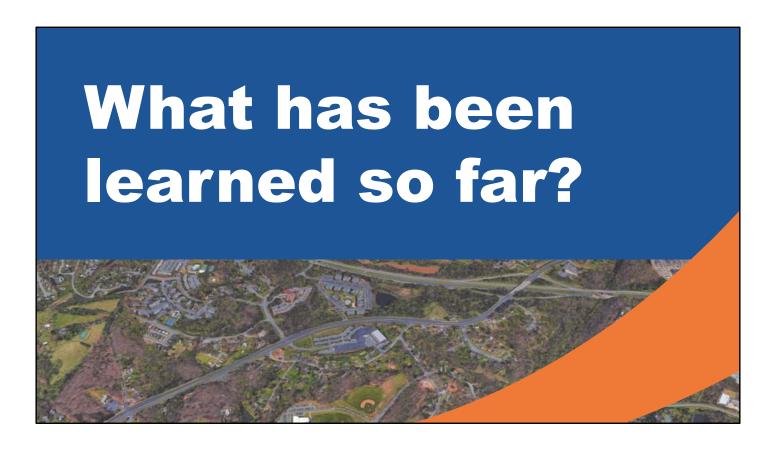
The study team established four goals to help meet the study vision. These goals were vetted with the study stakeholder group and members of the community. They include:

- 1. Improve safety and comfort
- 2. Manage congestion
- 3. Support economic development
- 4. Environmental sustainability and community health.

For more information about Complete Streets: https://www.transportation.gov/mission/health/complete-streets



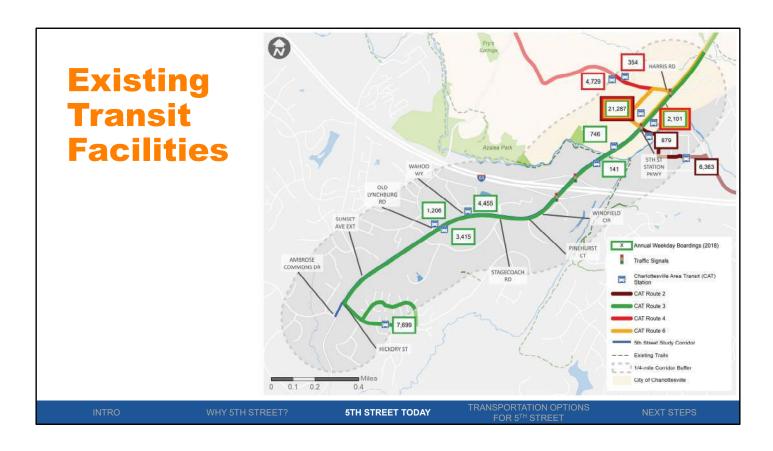
The study is in the fourth stage of a five-stage process. In the earlier stages of the project, the study team evaluated existing and future traffic, safety, and development conditions. Together with the study stakeholder group, the study team used findings from the conditions analysis to develop a draft vision, goals, and objectives for the study. The study team vetted the vision, goals, and objectives with community members through an online survey and targeted community meetings. Following this first round of public outreach, the study team worked with the study stakeholder group to develop preliminary transportation alternatives for 5th Street. The study team has evaluated the preliminary transportation alternatives based on the study vision, goals, and objectives, and will gather additional community feedback through today's public meeting and a second online survey. Following this second round of public outreach, the study team and the study stakeholder group will revise the final set of recommended alternatives.



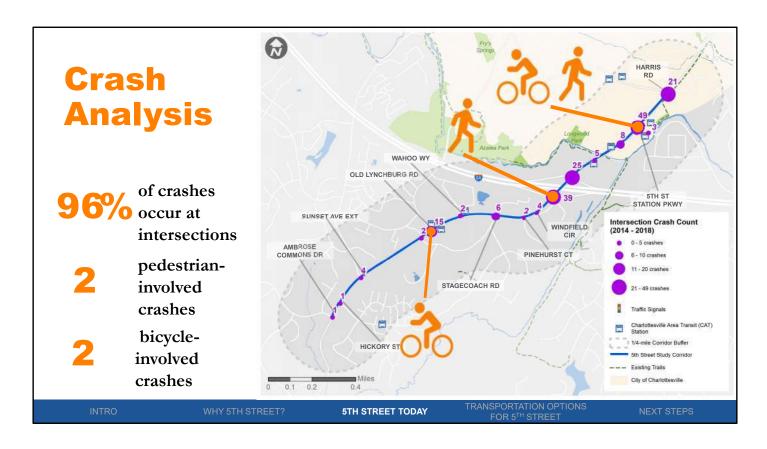
These slides summarize what has been learned from the study so far.



5th Street is characterized by inconsistent, incomplete bicycle and pedestrian facilities. Existing pedestrian facilities include a mix of sidewalks and substandard paved or gravel paths. Existing bike lanes end south of 5th Street Station Parkway and are unlikely to attract most potential cyclists due to the high posted speed limit and roadway volumes on 5th Street. There are just two intersections with designated pedestrian crosswalks on the corridor – both located north of I-64.



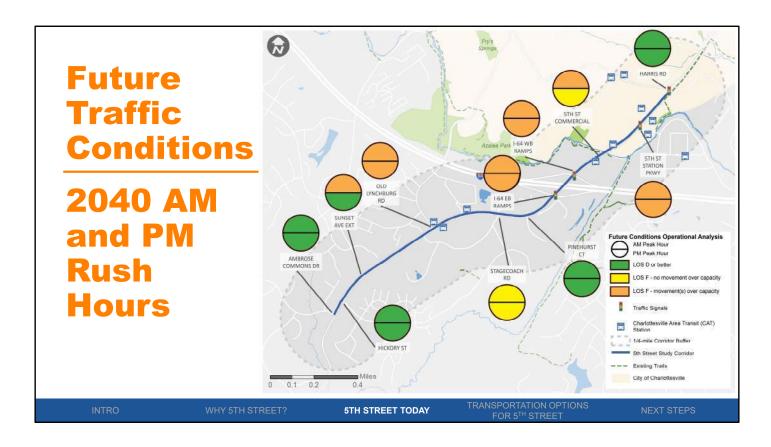
Every transit trip begins with a walking or biking trip, so the incomplete bicycle and pedestrian facilities on 5^{th} Street make it difficult for people to access transit stops along the corridor.



The study team reviewed five years of crash data along the study corridor and found that a vast majority of corridor crashes occurred at intersections. Intersections with the most corridor crashes include 5th Street Station Parkway, Harris Road, the I-64 interchange ramps, and Old Lynchburg Road.



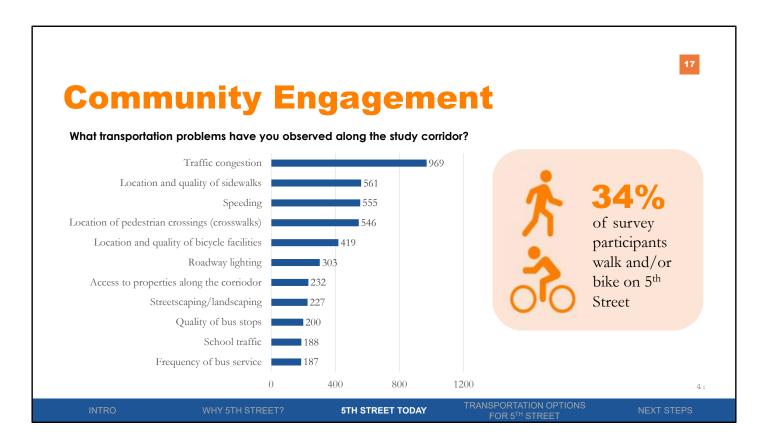
The study team evaluated existing traffic conditions during the morning and evening rush hours to understand the typical amount of congestion that motorists experience at corridor intersections. Most study intersections perform near capacity in both time periods, which is what traffic engineers aim for. A few intersections perform at or over capacity during either the morning or evening rush hour, which means that more vehicles are accessing the intersection than can be processed in one light cycle. One intersection, 5th Street and 5th Street Station Parkway, performs at or over capacity during both the morning and evening rush hour. This intersection typically experiences unstable operations and significant delays, resulting in a stressful experience for motorists.



The study team also evaluated future traffic conditions under a scenario that estimates future demand and considers leaving the roadways in their present state with routine maintenance. If no changes are made aside from routine maintenance, over half of the study intersections will perform at or over capacity during both the morning and evening rush hour.



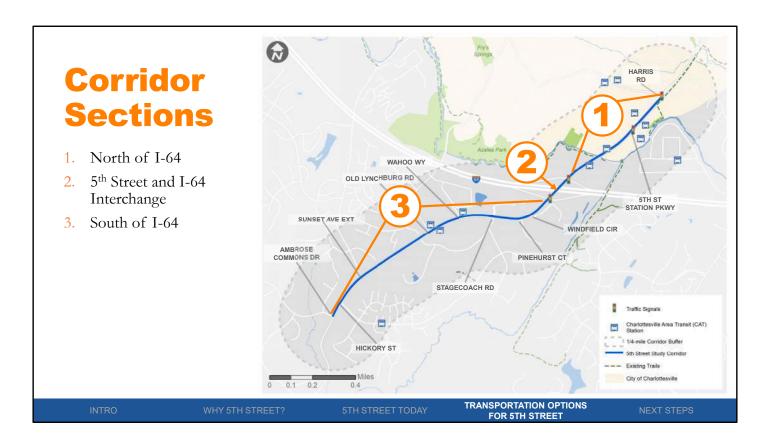
The study team gathered additional feedback on existing conditions and the study goals and objectives through a preliminary round of community engagement. An online survey about the study collected over 1,200 responses. The study team also held two focused community meetings with the 5^{th} and Avon Community Advisory Committee and Southwood community members.



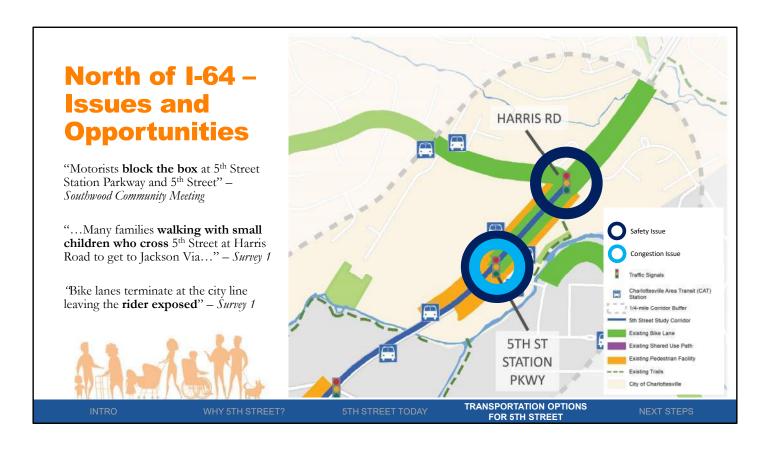
The preliminary community engagement revealed that 34% of survey participants walk and/or bike on 5th Street. The top four transportation issues identified by survey participants include traffic congestion, the location and quality of sidewalks, speeding, and the location of pedestrian crosswalks.



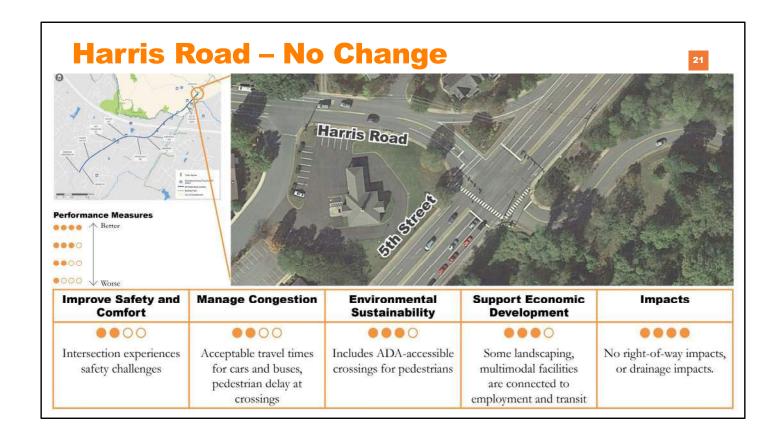
Together with the stakeholder group, the study team developed a series of transportation options for 5th Street.



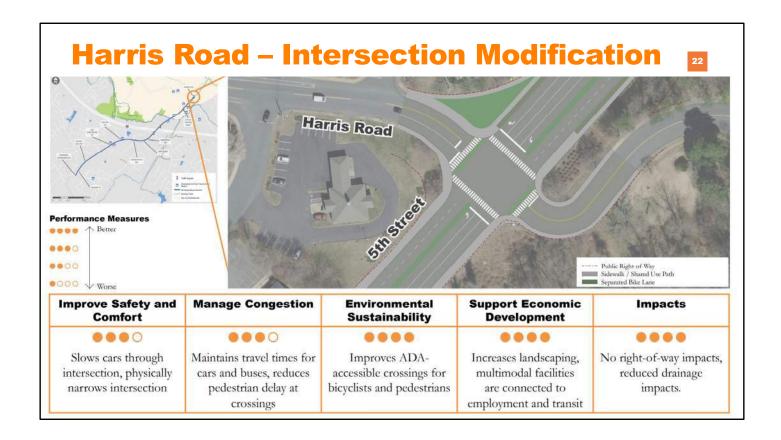
The 5th Street corridor can be divided into three different sections based on changes in the corridor transportation and land use context. The sections include 5th Street north of I-64, 5th Street at the I-64 interchange, and 5th Street south of I-64. The following slides outline different transportation options for each section.



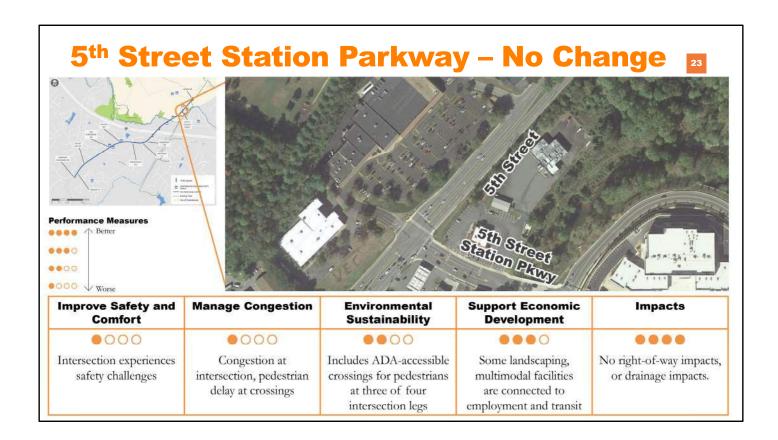
5th Street north of I-64 experiences safety challenges at signalized intersections related to turning vehicles and long vehicle queues. It also experiences some congestion challenges related to high delay and long vehicle queues. Pedestrians experience long waits to cross at intersections, and bicycle and pedestrian facilities end south of 5th Street Station Parkway. There is currently no buffer between bicycle and pedestrian facilities and the roadway.



If no changes are made to the signalized intersection of 5th Street and Harris Road, the intersection will continue to experience safety challenges for motorized and non-motorized modes. The intersection will continue to experience acceptable travel times for cars and buses, while pedestrians will continue to experience delay at crossings.



This near-term intersection modification option closes the channelized southbound right-turn lane to calm traffic and make it easier for cyclists and pedestrians to cross the road. The option improves safety and comfort by reducing speeds, while maintaining travel times for cars and buses and reducing pedestrian delay at crossings. It will improve ADA-accessible crossings for non-motorized users and maintain non-motorized connections to employment and transit. This option can be accomplished within the existing public right-of-way. It reduces drainage impacts by increasing available space for landscaping.



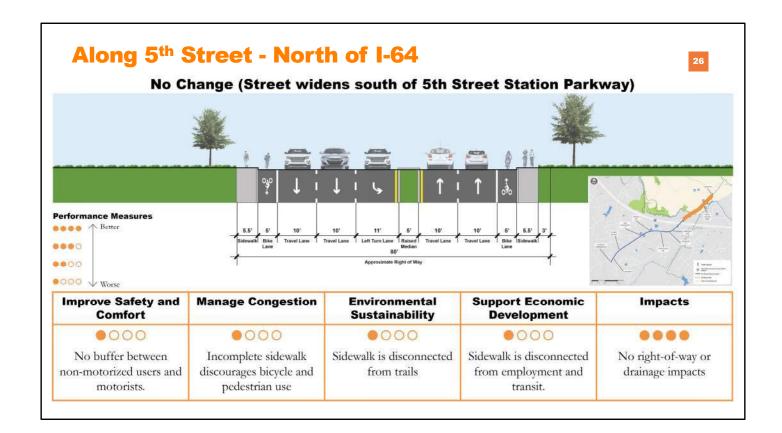
If no changes are made to the signalized intersection of 5th Street and 5th Street Station Parkway, the intersection will continue to experience safety and congestion challenges related to turning vehicles and long queues. Pedestrians will continue to experience delay at crossings.



Most of the congestion challenges at this intersection relate to motorists traveling to and from 5th Street Station shopping center. This option improves travel times for cars and buses by expanding the size of the intersection to add turning lanes into and out of 5th Street Station Parkway. Reducing queues and delays may reduce motor vehicle crashes. The safety tradeoff associated with this change is increased crossing distances and exposure for pedestrians. This option will improve existing ADA-accessible crossings for non-motorized users and maintain non-motorized connections to employment and transit. This option cannot be accomplished within the existing public right-of-way and increases drainage impacts by expanding the paved surface of the roadway.

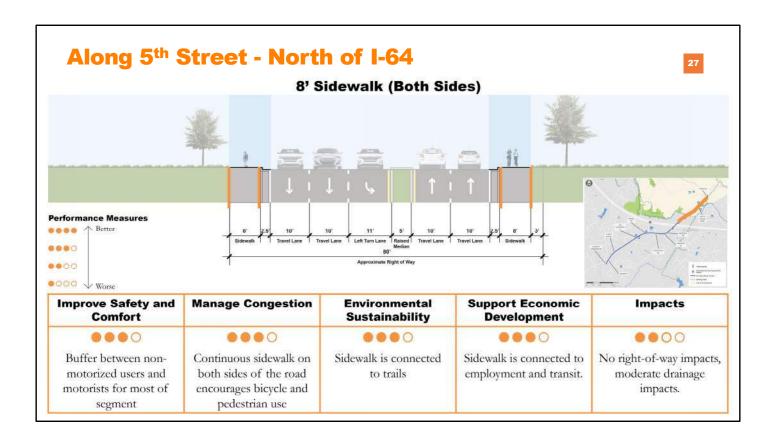


This option improves travel times for cars and buses by restricting left-turn access into and out of Willoughby Square Shopping Center from 5th Street and 5th Street Station Parkway. Motorists who want to access Willoughby Square Shopping Center from the south can do so through a new median opening north of 5th Street Station Parkway. Motorists who wish to exist Willoughby Square Shopping Center and travel north on 5th Street can do so via the Harris Road intersection. This option improves travel times for cars and buses. It reduces vehicle conflict points and may further reduce crashes by reducing delays. This option will improve existing ADA-accessible crossings for non-motorized users and maintain non-motorized connections to employment and transit. This option can be accomplished within the existing public right-of-way, and slightly increases drainage impacts by opening the median north of 5th Street Station Parkway.

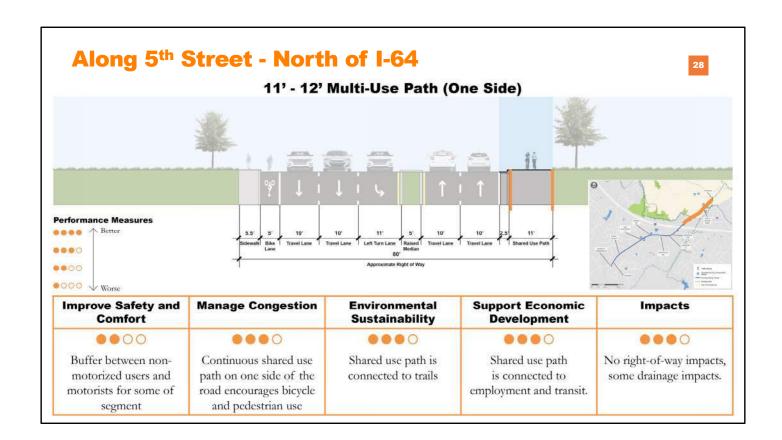


Today, sidewalks and bike lanes end south of 5th Street Station Parkway. The incomplete bicycle and pedestrian network is disconnected from trails, employment, and transit, discouraging bicycle and pedestrian use. Existing sidewalk and bike lanes do not include a buffer separating non-motorized users and motorists, further reducing comfort for non-motorized users.

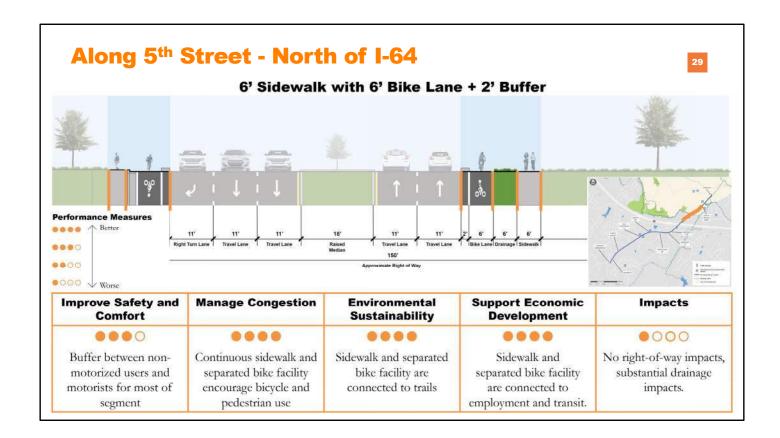
The following options would implement continuous, consistent walking and biking facilities on $5^{\rm th}$ Street.



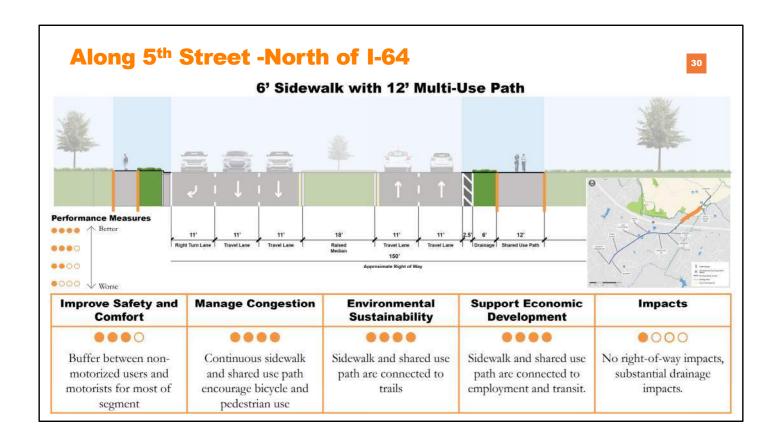
The first option would implement wide, eight-foot sidewalks on both sides of 5th street. Bicyclists and pedestrians would share the sidewalks. Where right-of-way allows, a landscape buffer would be provided between non-motorized users and motorists. This option can fit within the existing right-of-way and would have moderate drainage impacts due to the increase in paved area on both sides of the road.



The second option would implement a multi-use path on one side of 5th Street. Bicyclists and pedestrians would share the path. Where right-of-way allows, a landscape buffer would be provided between non-motorized users and motorists. This option can fit within the existing right-of-way and would have some drainage impacts due to the increase in paved area on one side of the road.



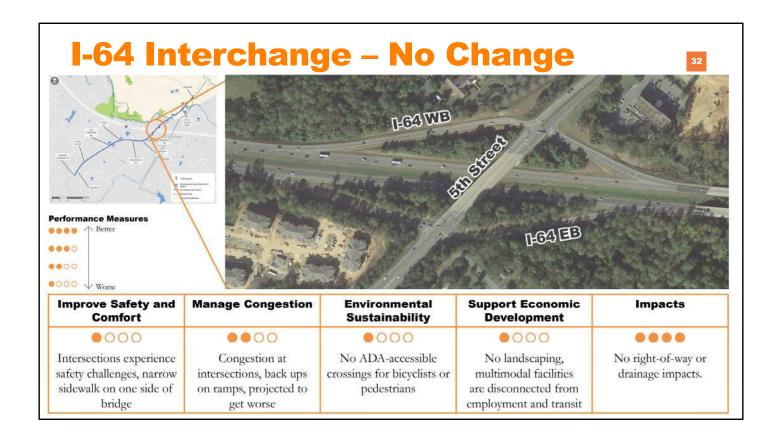
The third option would implement a six-foot sidewalk and six-foot buffered bike lane on both sides of 5th Street. This is the only option that fully separates bicyclists, pedestrians, and motorists. Where right-of-way allows, a landscape buffer would be provided between non-motorized users and motorists. This option can only fit within the existing right-of-way south of 5th Street Station Parkway and would need to transition to eight-foot sidewalks or a multi-use path between 5th Street Station Parkway and Harris Road. It would have substantial drainage impacts due to the increase in paved area on both sides of the road.



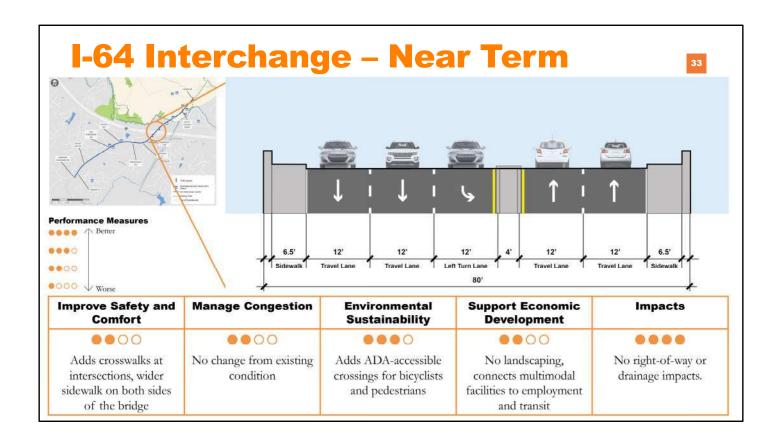
The fourth option would implement a six-foot sidewalk on one side of 5th Street and a multi-use path on the other side of 5th Street. Bicyclists and pedestrians would share the sidewalk and path. Where right-of-way allows, a landscape buffer would be provided between non-motorized users and motorists. This option can only fit within the existing right-of-way south of 5th Street Station Parkway and would need to transition to eight-foot sidewalks or a shared use path between 5th Street Station Parkway and Harris Road. It would have substantial drainage impacts due to the increase in paved area on both sides of the road.



5th Street at the I-64 interchange experiences safety challenges at both signalized ramp intersections related to turning vehicles and long vehicle queues. It also experiences congestion challenges at the 5th Street and the I-64 eastbound ramp. A narrow concrete walkway on the bridge is the only non-motorized accommodation, so bicyclists and pedestrians have trouble safely and comfortably crossing over I-64.

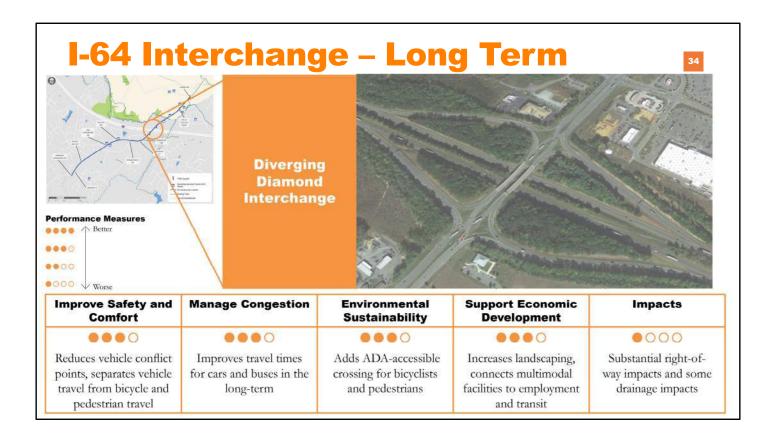


If no changes are made to the I-64 interchange, its signalized intersections will continue to experience safety challenges for motorized and non-motorized modes. The narrow sidewalk on the west side of the bridge is uncomfortable for most non-motorized users. The interchange intersections will experience delayed travel times for cars and buses, including back-ups on ramps. The interchange lacks ADA-accessible crossings and sidewalks, and the narrow sidewalk is disconnected from employment and transit.



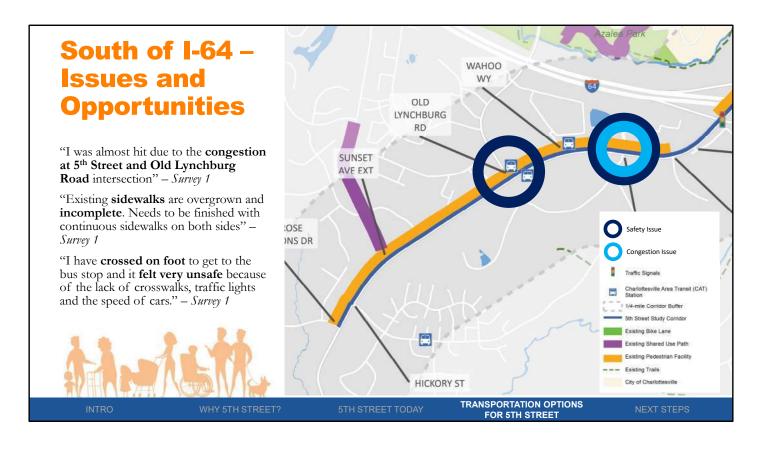
This near-term option focuses on adding crosswalks at intersections and wider sidewalks on both sides of the bridge to improve non-motorized safety and comfort. If paired with bicycle and pedestrian facilities north and south of I-64, this option would increase multimodal connections to employment and transit.

This option would not change travel times for cars and buses.

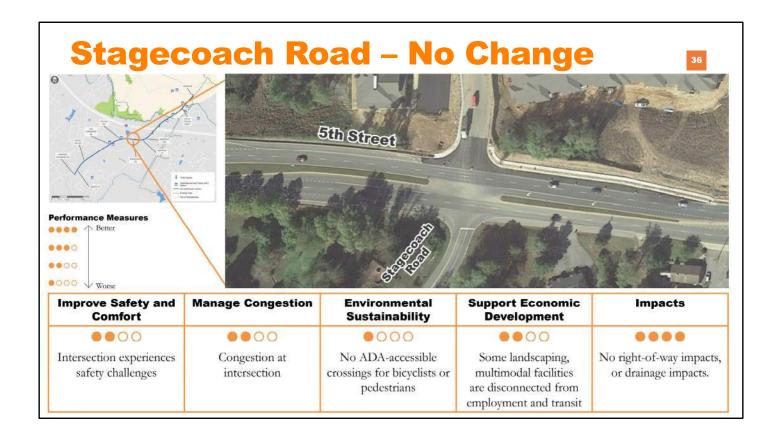


This long-term option would convert the I-64 interchange into a diverging diamond interchange (DDI). A DDI is a grade-separated interchange design where the major road, 5th Street, crosses to the other side of the roadway between freeway ramps. This design reduces vehicle conflict points and separates vehicle travel from bicycle and pedestrian travel to improve safety and comfort. The DDI would improve travel times for cars and buses, add ADA-accessible crossings for bicyclists and pedestrians, and increase multimodal connections to employment and transit. This option would have substantial right-of-way and drainage impacts. The example shown on this slide is the DDI at Zions Crossroads.

Visit VDOT's Innovative Intersections Website for more information on DDIs: https://www.virginiadot.org/info/innovative intersections and interchanges/ddi.asp



5th Street south of I-64 experiences safety challenges at unsignalized intersections related to turning vehicles. It also experiences some congestion challenges related to vehicles waiting to turn at unsignalized intersections. There are no designated pedestrian crossings on this section of the corridor, and bicycle and pedestrian facilities are missing from the south side of 5th Street. The existing pedestrian facility on the north side of 5th Street is a mix of paved and gravel paths that are not ADA accessible. The only buffer between the pedestrian facility and the roadway is a guardrail.



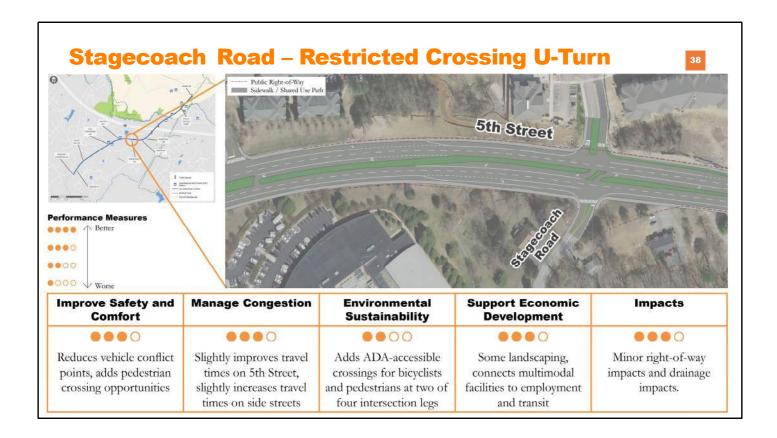
If no changes are made to the unsignalized intersection of 5th Street and Stagecoach Road, the intersection will continue to experience safety and congestion challenges related to turning vehicles. Pedestrians will not have designated, ADA-accessible crossings, and multimodal facilities will remain disconnected from employment and transit opportunities.



This option replaces the unsignalized intersection with a roundabout. Roundabouts improve safety by calming traffic, reducing vehicle conflict points, and adding ADA-accessible pedestrian crossing opportunities. This option would also slightly improve travel times for cars and buses and connect multimodal facilities to employment and transit opportunities. The roundabout would have no right-of-way impacts and reduced drainage impacts by increasing available space for landscaping.

Visit VDOT's Innovative Intersections Website for more information on roundabouts:

https://www.virginiadot.org/info/innovative intersections and interchanges/roundabout.asp



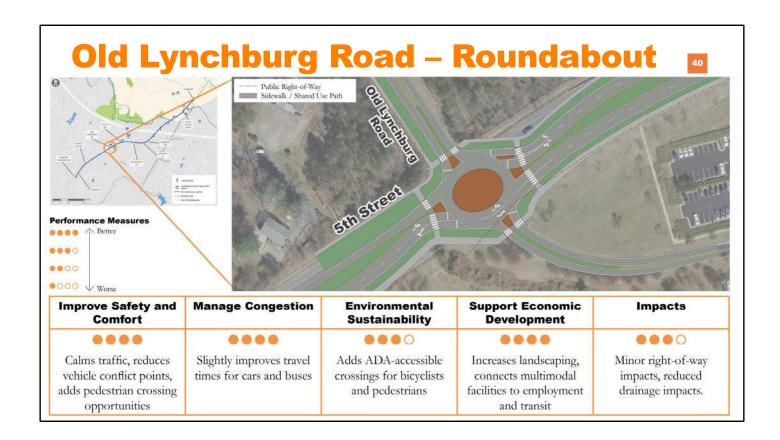
This option replaces the unsignalized intersection with an unsignalized Restricted Crossing U-Turn (RCUT). RCUTs are intersection designs where all side street movements begin with a right turn. Side street left-turn and through vehicles turn right and make a U-turn at a dedicated downstream median opening to complete the desired movement. This option would improve safety by reducing vehicle conflict points and adding ADA-accessible pedestrian crossing opportunities. This option would also slightly improve travel times for cars and buses on 5th Street, while slightly increasing travel times for cars and buses turning left onto 5th Street from Stagecoach Road/Afton Pond Court. It would connect multimodal facilities to employment and transit opportunities. The RCUT would have minor right-of-way and drainage impacts by opening the median west of Stagecoach Road.

Visit VDOT's Innovative Intersections Website for more information on Restricted Crossing U-Turns:

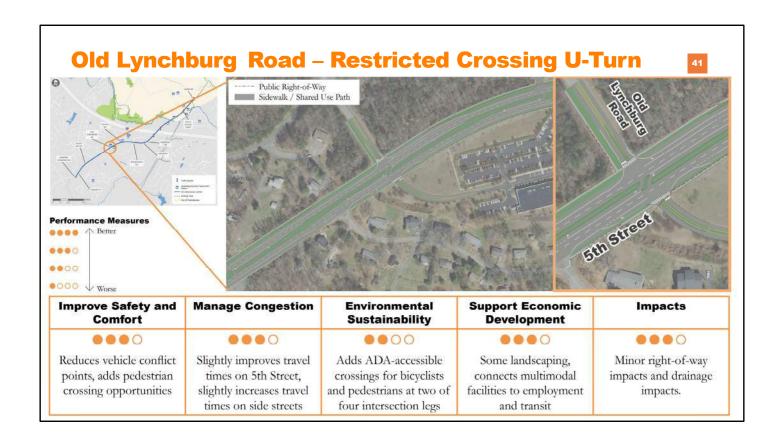
https://www.virginiadot.org/info/innovative intersections and interchanges/r cut.asp



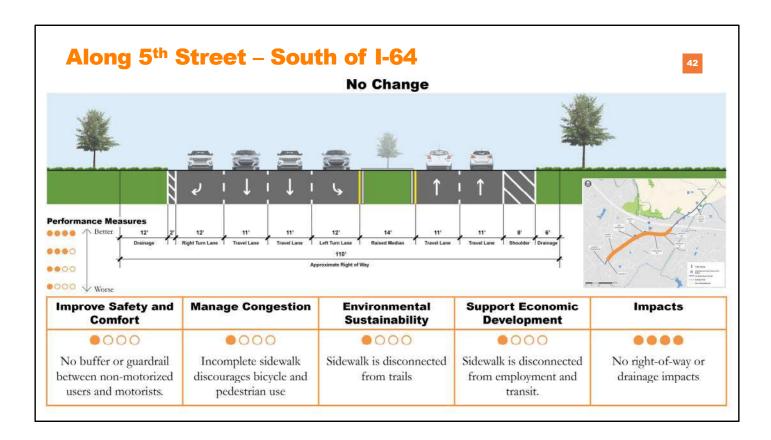
If no changes are made to the unsignalized intersection of 5th Street and Old Lynchburg Road, the intersection will continue to experience safety and minor congestion challenges related to turning vehicles. Pedestrians will not have designated, ADA-accessible crossings, and multimodal facilities will remain disconnected from employment and transit opportunities.



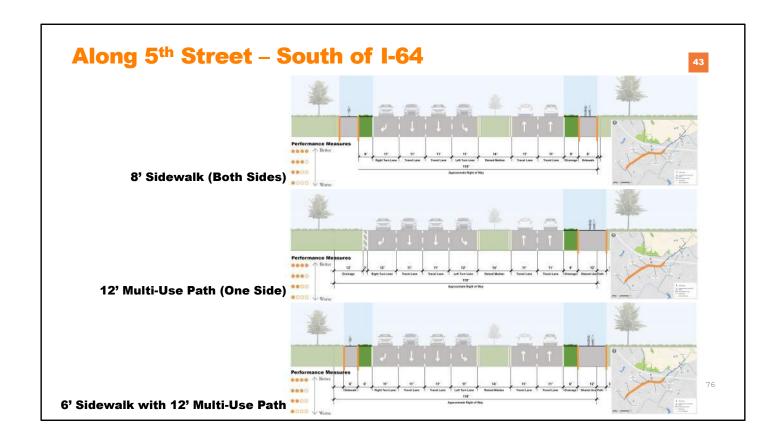
This option replaces the unsignalized intersection with a roundabout. Like the roundabout at Stagecoach Road, a roundabout would improve safety and comfort, slightly improve travel times, add ADA-accessible pedestrian crossing opportunities, and connect multimodal facilities to employment and transit opportunities. The roundabout would have minor right-of-way impacts and reduced drainage impacts by increasing available space for landscaping.



This option replaces the unsignalized intersection with an unsignalized Restricted Crossing U-Turn (RCUT). Like the RCUT at Old Stagecoach Road, an RCUT would improve safety and comfort, slightly improve travel times on 5th Street, add ADA-accessible pedestrian crossing opportunities, and connect multimodal facilities to employment and transit opportunities. The RCUT would have minor right-of-way and drainage impacts by opening the median west of Stagecoach Road.



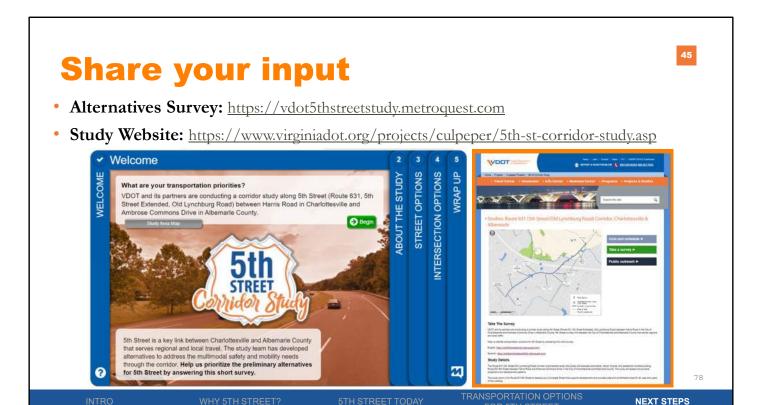
Today, 5th street south of I-64 has a mix of paved and gravel paths on one side of the street. The incomplete bicycle and pedestrian network is disconnected from trails, employment, and transit, discouraging bicycle and pedestrian use. The existing pedestrian network does not include a buffer separating non-motorized users and motorists, further reducing comfort for non-motorized users.



The same mix of options involving sidewalks and multi-use paths north of I-64 could be applied along 5^{th} Street South of I-64 to implement continuous, consistent walking and biking facilities on 5^{th} Street.



The following slides outline next steps for you, the project team, and the 5^{th} Street corridor.

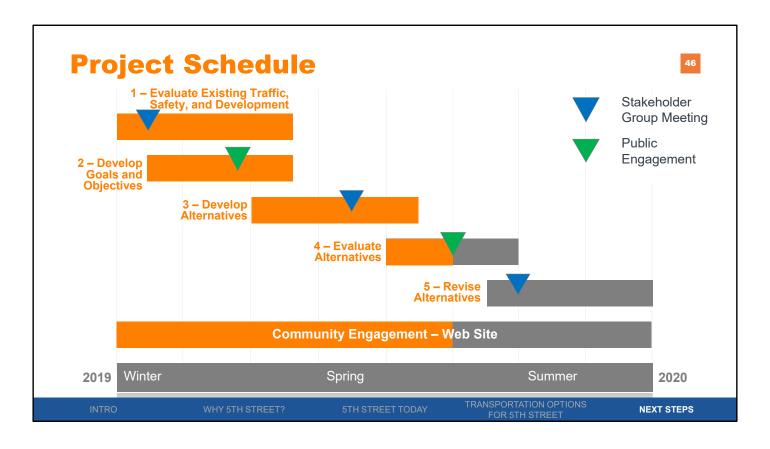


Now that you have had a chance to learn about the different transportation alternatives for 5th Street, please share your input via the alternatives survey! The survey, which can be accessed at

https://vdot5thstreetstudy.metroquest.com, will be open until June 26, 2020. You will be able to weigh in on all of the alternatives shared today.

Once you take the survey, please share it widely with your fellow community members so that they can share their input.

Finally, if you are interested in seeing the results of the survey and next steps, please keep an eye on the study website. The study team will update it with the results of the survey and the final report and recommendations.

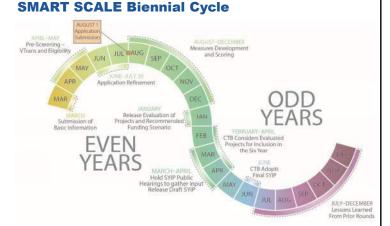


The 5th Street Corridor Study kicked off by evaluating existing traffic, safety, and development in Winter 2019. Refined transportation alternatives and planning-level cost estimates will be completed by the end of Summer 2020.

47

After the 5th Street Study

- 1. Secure funding for project(s)
 - Available VDOT funds
 - SMART SCALE program
- 2. Alternative refinement
 - Design
 - Environmental analysis
 - Community engagement
- 3. Construction (timeline varies)



7:

INTRO

WHY 5TH STREET?

5TH STREET TODA

RANSPORTATION OPTIONS FOR 5TH STREET

NEXT STEPS

The next step after the completion of this study is to secure funding for the recommended project(s). After funding is secured, VDOT will take the concepts developed through this study and further refine alternatives, determine the environmental impacts of the alternatives, and engage the community to get more feedback on the alternatives. The refined and funded alternatives will then move to construction. Each of the projects identified through this study will have a different timeline for construction, which will depend on the priority given to project by the local governments, cost of the project, the amount of land needed for the project, and the environmental impacts.



We will now conduct our thirty minute question and answer session. To ask questions at any time during the Question and Answer session, please post them in the "Questions Box" in your GoToWebinar window. We will post a record of key questions and responses to the study website after today's meeting in the form of an updated FAQs document.

Thank you! Thank you! Thank you! Thank you!

Thank you for participating in this Alternatives Public Meeting for the 5th Street Corridor Study! Please remember to take the study survey and stay in touch through the study website:

- Survey: https://www.virginiadot.org/projects/culpeper/5th-st-corridor-study.asp
- Website: https://vdot5thstreetstudy.metroquest.com

Attachment D 5th Street
Alternatives
Presentation
Q&A

FREQUENTLY ASKED QUESTIONS

This document answers frequently asked questions about the Virginia Department of Transportation (VDOT) 5th Street Corridor Study. It contains four key sections, listed below. CTRL + click any heading below to navigate to your desired section within the Frequently Asked Questions document.

About the study	2
What process was used to develop the alternatives?	2
What is the timeline for this study?	2
Who are the decision makers after this study?	2
What is the process for taking this study to construction?	2
About the alternatives	3
General	3
Alternatives along 5 th Street	3
Intersection Alternatives	5
Other questions	8
How will drainage impacts be mitigated with increased pavement along the corridor?	8
What is a traffic signal warrant?	8
Is it feasible to lower the speed limit along the corridor?	8
Will the recommendations from this study include additional CAT bus stops along the corridor?	9
More information	9
Who do I contact for more information?	9
How can I stay engaged?	9



About the study

What process was used to develop the alternatives?

The Virginia Department of Transportation (VDOT) funded the 5th Street Corridor Study to engage the City of Charlottesville, Albemarle County, and other stakeholders¹ to evaluate automobile, transit, bicycle, and pedestrian travel conditions along the 5th Street corridor. The study collected information on existing multimodal travel demand², crash history, and projected future traffic and development patterns³.

In addition to engaging the stakeholder group, the study team met with the 5th and Avon Community Advisory Committee and Southwood Community. A survey was conducted in February/March of 2020 to hear from the community. The survey received 1,280 responses.

The information from the stakeholders and the public was used along with the traffic and crash analysis to develop goals and objectives for the project and the preliminary alternatives to address these goals. The preliminary alternatives were presented during a June 2020 public meeting. These alternatives will be refined based on public input and prioritized based on the study goals and objectives.

What is the timeline for this study?

The 5th Street Corridor Study kicked off by evaluating existing and future no-build conditions⁴ in winter 2019. Refined transportation alternatives and planning-level cost estimates will be completed by the end of summer 2020.

Who are the decision makers after this study?

This planning study will recommend a series of short- and long- term investments for 5th Street. The recommendations will be implemented through several projects that will require prioritization, funding, and engineering. The Virginia Department of Transportation (VDOT) will continue to work with Charlottesville, Albemarle County, Charlottesville-Albemarle Metropolitan Planning Organization, and Thomas Jefferson Planning District Commission to further refine and implement recommendations. Each project to move forward from this planning study will involve additional public engagement to inform the final design.

What is the process for taking this study to construction?

The 5th Street Corridor Study will define a set of improvement strategies that are implementable and supported by the local governments, major stakeholders, and the community. After completing this study, the

⁴ A future no-build conditions analysis considers leaving 5th Street unchanged aside from routine maintenance. It then estimates future travel demand and calculating future delays and travel times. This analysis models how travel conditions on 5th Street would change if no modifications are made to the roadway aside from routine maintenance.



¹ The study is supported by a stakeholder group made up of representatives from the City of Charlottesville, Albemarle County, the Thomas Jefferson Planning District Commission (TJPDC), the Charlottesville-Albemarle Metropolitan Planning Organization (CA-MPO), Charlottesville Area Transit (CAT), and the 5th and Avon Community Advisory Committee.

² Existing multimodal travel demand includes pedestrian and bicyclist activity during the A.M. and P.M. rush hours at eleven study intersections on the corridor.

³ Future traffic and development patterns include the new and projected residential and commercial developments coming to the corridor, including the Southwood development.

next step is to secure funding for the project(s). After funding is secured, VDOT will take the concepts developed through this study and further refine alternatives, determine the environmental impacts of the alternatives, and engage the community to gain more feedback on the alternatives. The refined and funded alternatives will then move to construction. Each of the projects identified through this study will have a different timeline for construction, which will depend on: the priority given to the project by the local governments; the cost of the project; the amount of land needed for the project; and the environmental impacts.

About the alternatives

General

How will the alternatives be funded?

Funding will depend on the type of improvements identified. Some of the intersection or safety improvements may be completed by the Virginia Department of Transportation (VDOT) with available funds. Additional funds can be obtained through Virginia's SMART SCALE program. This program requires regional entities, including Metropolitan Planning Organizations (MPO), Planning District Commissions (PDC), and public transit agencies to apply for funding. Localities (e.g., Albemarle County and the City of Charlottesville) can also submit projects within their jurisdictions. The Charlottesville-Albemarle Metropolitan Planning Organization and Thomas Jefferson Planning District Commission work with representatives from VDOT, Albemarle, and Charlottesville to select and submit projects for funding through VDOT's SMART SCALE program. Funding is prioritized for projects that improve the Corridors of Statewide Significance, enhance the Regional Transportation Network, compliment an Urban Development Area, and address Safety concerns. More information is available on Virginia's SMART SCALE website: http://vasmartscale.org/

Considering costs and available funding, how feasible are the preliminary alternatives?

Following the online public meeting, the study team will develop planning-level cost estimates for each alternative. The study team will use each alternative's planning-level cost estimates to estimate each alternative's performance in VDOT's SMART SCALE funding evaluation process. This information will be shared in the final report for the study.

Alternatives along 5th Street

Did the study team test the feasibility of repurposing lanes on 5th Street from vehicular travel lanes to multimodal (i.e., bus, bike, pedestrian) travel lanes?

The study team tested the feasibility of repurposing lanes on 5th Street and found that most intersections along the corridor would not be able to adequately process through traffic on 5th Street via one travel lane in each direction. However, the study team did find that a lane repurposing could take place on 5th Street for



approximately 0.5 miles between Old Lynchburg Road and Hickory Street. The team is developing a planning-level cost estimate for this lane repurposing, which will be shared in the final report for the study.

Why is a physically separated bike lane not included as an alternative between 5th Street Station Parkway and Harris Road?

A physically separated bicycle lane was not shown as an alternative between 5th Street Station Parkway and Harris Road due to the constrained public right-of-way and topographical challenges along that section of 5th Street. The inclusion of a comfortable physically separated bicycle lane on this section would entail the purchase of right-of-way from property owners along 5th Street.

How will this study ensure the continuity of multimodal options beyond the 5th Street corridor?

The study proposes consistent, continuous multimodal facilities along the length of the 5th Street corridor. The intersection alternative at 5th Street and Harris Road will show how new facilities can transition to existing multimodal facilities on 5th Street, north of Harris Road. Since the roadway character changes from urban/suburban to rural south of Ambrose Commons Drive, bicyclists will transition onto 5th Street south of Ambrose Commons Drive. By establishing consistent, continuous multimodal facilities along 5th Street, the study will provide a model for any future changes to local roads that intersect the study corridor.

Isn't it illegal to bike on the sidewalk? How will the multimodal alternatives included in the study accommodate e-bikes and other new and emerging micro-mobility technologies?

Under current state law, non-motorized bicycles and micro-mobility modes, such as e-bikes or e-scooters, may be ridden on sidewalks unless prohibited by local ordinance or traffic control devices. Charlottesville has passed a local ordinance prohibiting all non-motorized bicycles and micro-mobility modes from operating on City sidewalks. Albemarle County has not prohibited non-motorized bicycles and micro-mobility modes from operating on sidewalks.

The preliminary alternatives presented in the study include separated bicycle lanes and twelve-foot multi-use paths. The separated bicycle lane option would accommodate micro-mobility modes and non-motorized bicycles, providing pedestrians with full access to standard sidewalks. The multi-use path options would provide an off-road accommodation for pedestrians, non-motorized bicycles, and micro-mobility modes. If one of the multi-use path options is preferred by the public, the multi-use path would include clear signing and marking to communicate that multi-use paths are meant for pedestrians, bicyclists, and micro-mobility modes.



Intersection Alternatives

Is it possible to improve traffic conditions by modifying traffic signal timing?

While minor improvements could be made to individual movements with modifications to traffic signal timing, these signal timing adjustments would come with corresponding longer delays and queues of opposing movements. For example, further prioritizing north-south travel along 5th Street would result in potentially dangerous queue spillback of the I-64 off-ramps onto I-64.

The study team conducted a future no-build traffic analysis of the study corridor to understand projected future traffic and development patterns. The team then expanded upon the future no-build traffic analysis by testing modifications to existing signals along the corridor. This analysis confirmed that modifications to existing signals alone will not manage congestion and meet other study goals.

What are the potential right-of-way impacts of the preliminary alternatives at the intersection of 5th Street and 5th Street Station Parkway? Will these alternatives modify access for properties adjoining the intersection?

Both preliminary alternatives for 5th Street and 5th Street Station Parkway would have moderate right-of-way impacts and affect existing properties adjoining the intersection. If either of the preliminary alternatives are advanced by VDOT and the study stakeholders, a new study would further refine the alternative, determine the alternative's environmental impacts, and engage the community to obtain more feedback.

The follow-up study would fully test and determine any changes to public right-of-way and property access in the vicinity of the intersection.

Did the study team test the viability of conventional traffic signals for intersections south of I-64?

The study team conducted a future no-build traffic analysis of the study corridor to understand projected future traffic and development patterns. Building on the future no-build traffic analysis, the study team tested converting unsignalized intersections south of I-64 to signalized intersections. At the intersection with Stagecoach Road, traffic signal warrants are not projected to be met under future conditions, but the existing unsignalized configuration would result in the Stagecoach Road approach being over capacity and experiencing very long delays and queues. At the intersection with Old Lynchburg Road, traffic signal warrants are projected to be met in the future; however, the safety and multimodal benefits of a roundabout or restricted crossing U-turn intersection were preferred for this location. Overall, the team's analysis confirmed that converting unsignalized intersections to signalized intersections would not help to manage congestion and meet other study goals, and that other intersection control forms would produce better operations and enhanced safety performance.



Would the introduction of roundabouts come with an increased crash risk since many people may not have encountered them before and may be unsure how to navigate them? How will VDOT mitigate this risk?

Based on research collected both internationally and domestically, converting a two-way stop control intersection to a multilane roundabout typically results in a reduced number of crashes, especially severe and fatal crashes. Immediately upon opening, some roundabouts have seen a temporary uptick in the number of crashes, particularly property-damage-only crashes (fender benders).

VDOT will mitigate this risk by developing construction phasing plans based on industry-wide best practice, providing increased driver education and public awareness, and designing the roundabout consistent with the roundabout design principles in NCHRP Report 672: Roundabouts an Informational Guide.

Would the roundabouts at Old Lynchburg Road and Stagecoach Road be spaced too closely to each other? How would they function together?

These intersections are approximately 1,700 feet apart. The longest 95th percentile queue on 5th Street, which is located between these two intersections, is 175 ft. Based on an analysis of both intersections, there would be sufficient queueing space for vehicles between the two roundabouts at Old Lynchburg Road and Stagecoach Road.

In addition to reducing delay for motorists and buses, the two roundabouts would calm traffic on 5th Street, south of Stagecoach Road. They would also provide ADA-accessible, dedicated pedestrian crosswalks. Today, there are no dedicated pedestrian crosswalks on 5th Street, south of 5th Street Station Parkway.

Are there any modifications being considered for the intersection of 5th Street and Sunset Avenue Extended? How would preliminary alternatives at Old Lynchburg Road and Stagecoach Road affect traffic driving to and from Sunset Avenue Extended?

The study team did not consider specific alternatives for the intersection of 5th Street and Sunset Avenue Extended. Today, the intersection operates under capacity, which means that delay is low and travel conditions are comfortable for motorists. The intersection also experienced a low number of crashes over the last five years based on available data.

By reducing delay for vehicles accessing 5th Street from Old Lynchburg Road, preliminary alternatives such as a roundabout or a restricted crossing U-Turn (RCUT) could alleviate future demand on Sunset Avenue Extended.

⁵ Before-and-after conversion data summarized in NCHRP Report 572 showed that all crashes were reduced by 35% percent and injury crashes were reduced by 76%, following conversion of signalized, all-way stop, and two-way stop intersections to a roundabout. A focused review of before-and-after conversion data for two-way stop control intersections revealed greater safety benefits, with all crashes reduced by 44% and injury crashes reduced by 82%, following conversion to a roundabout.



Did the study team consider adding slip lanes at the I-64 interchange ramps as a near-term solution?

The study team conducted a future no-build traffic analysis of the study corridor to understand projected future traffic and development patterns. The study team then tested how near-term modifications to the I-64 interchange ramps would perform under traffic conditions in the future no-build traffic analysis. The team's analysis confirmed that near- to mid-term modifications such as adding slip lanes would not help to manage congestion and meet other study goals.

What is a diverging diamond interchange? How do bicyclists and pedestrians navigate a diverging diamond interchange?

A diverging diamond interchange (DDI) is a grade-separated interchange design that would make it simpler and safer for motorists to enter and exit I-64 from 5th Street. Motorists turning right onto a freeway ramp would use right turn lanes like at a conventional interchange. Motorists turning left onto a freeway ramp would follow 5th Street from the right side of the road to the left side of the road where motorists would be able to turn left onto the ramp. Motorists continuing straight through the interchange would follow 5th Street from the right side of the road to the left side of the road and back to the right side of the road after passing through the interchange.

Bicyclists and pedestrians would enter a diverging diamond interchange via a separated multi-use path running along both sides of 5th Street. Bicyclists and pedestrians would cross a ramp and 5th Street to reach the center of the interchange (i.e., between the northbound and southbound lanes of 5th Street). They would follow the separated multi-use path down the center of the interchange and then cross 5th Street and a ramp to exit the interchange and continue along their preferred side of 5th Street. People walking and biking would have dedicated time to cross 5th Street at signals and reduced crossing distances to minimize the chance for vehicular conflicts.

For more information about how diverging diamond interchanges work, including an infographic and video, please see VDOT's innovative intersections web page: https://www.virginiadot.org/info/innovative intersections and interchanges/ddi.asp

How would the neighborhoods near the I-64 interchange be affected if a Diverging Diamond Interchange were to be constructed?

Since there would be no left-turn lanes on 5th Street, a diverging diamond intersection at 5th Street and I-64 could have a narrower cross section and fewer right-of-way impacts. However, if the long-term diverging diamond interchange alternative is advanced by VDOT and the study stakeholders, a new study would be conducted to refine this alternative and evaluate impacts. While our current study simply shows examples of diverging diamond interchanges in other locations, the new study would develop a design specific to the 5th Street and I-64 interchange. It would include a thorough investigation of environmental and property impacts and an extensive public engagement process.



Other questions

How will drainage impacts be mitigated with increased pavement along the corridor?

Some of the preliminary alternatives presented at the June 4 online meeting, such as the roundabout alternatives at Stagecoach Road and Old Lynchburg Road, would reduce drainage impacts through increased permeable landscaping. Alternatives that would increase drainage impacts, such as continuous and consistent bicycle and pedestrian facilities, would require mitigation in compliance with State standards. Options to mitigate drainage impacts along 5th Street could include the addition of stepped bioretention facilities in the landscaped buffer between travel lanes and multimodal facilities.

If any of the preliminary alternatives are advanced by VDOT and the study stakeholders, future studies and design phases would fully evaluate and select appropriate drainage mitigation techniques for each alternative.

What is a traffic signal warrant?

A traffic signal warrant is a set of conditions that an unsignalized intersection must meet to justify installing a signal at the intersection. Traffic signal warrants help traffic engineers determine if a new traffic signal will be beneficial. In Virginia, new traffic signals cannot be installed without the completion of a signal justification report that includes warrant analyses in accordance with National and State warrants. Traffic signal warrants can be related to the number of vehicles entering the intersection from the main street and side streets, the number of pedestrians trying to cross the intersection, and the intersection's crash history.

For other frequently asked questions on traffic signals, please see the VDOT web page on traffic signals:

https://www.virginiadot.org/info/faq-trafficsignals.asp

Is it feasible to lower the speed limit along the corridor?

While the 5th Street study did not conduct a speed study on 5th Street, many of the preliminary alternatives have the potential to improve driver compliance with posted speeds on 5th Street. Alternatives such as the roundabouts at Old Lynchburg Road and Stagecoach Road would calm traffic and reduce speeds through the intersection. The addition of continuous, consistent walking and biking facilities with increased landscaping along the corridor would modify the character of the roadway and influence driver compliance with posted speeds.

If you believe there is a need to change a speed limit or if you have other questions regarding speed, contact your local VDOT residency office. The local VDOT District Traffic Engineer has the authority to increase or decrease speed limits and considers whether a review of a particular speed limit is warranted based on VDOT's "Speed Limit Change Process" policy. See the policy here for details.

For other frequently asked questions on speed limits, please see the VDOT web page on speed limits: http://www.virginiadot.org/info/faq-speedlimits.asp



Will the recommendations from this study include additional CAT bus stops along the corridor?

The 5th Street study will defer to Charlottesville Area Transit's (CAT) current transit development plan for FY 2019 to FY 2028. The transit development plan outlines recommended updates to CAT routes and standards for bus stop spacing. The latest version of the CAT Transit Development Plan can be found on Charlottesville's website:

https://www.charlottesville.gov/DocumentCenter/View/3094/CAT---Transit-Development-Plan---Oct-2018

More information

Who do I contact for more information?

Chuck Proctor, Culpeper District Planning Manager charles.proctor@vdot.virginia.gov
540-829-7558

How can I stay engaged?

The study team is conducting a second survey on specific transportation options for 5th Street. The survey will be available from May 28, 2020 through June 26, 2020. You can visit the project website to access the survey for the 5th Street Corridor Study: http://www.virginiadot.org/projects/culpeper/5th-st-corridor-study.asp.

Other documents with information about the 5th Street study may be accessed on the website, including:

- Existing and Future No-Build Condition Report: https://www.virginiadot.org/projects/resources/Culpeper/5th Street Corridor Study/21605.027 V
 https://www.virginiadot.org/projects/resources/Culpeper/5th Street Corridor Study/21605.027 V
 https://www.virginiadot.org/projects/resources/Culpeper/5th Street Corridor Study/21605.027 V
 https://www.virginiadot.org/projects/resources/Culpeper/5th Street Corridor Study/21605.027 V
 https://www.virginiadot.org/projects/resources/Culpeper/5th Street Corridor Study/21605.027 V
- Phase 1 Public Engagement Report:
 https://www.virginiadot.org/projects/resources/Culpeper/5th Street Corridor Study/21605.027 V
 DOT_5thSt_Ph1_Engagement_Tech_Memo_FINAL.pdf



